

Summer 6-2012

# The First 25 Years of the Bled eConference: Themes and Impacts

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## Recommended Citation

Clarke, Roger, "The First 25 Years of the Bled eConference: Themes and Impacts" (2012). *BLLED 2012 – Special Issue*. 3.  
[http://aisel.aisnet.org/bled2012\\_special\\_issue/3](http://aisel.aisnet.org/bled2012_special_issue/3)

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## The First 25 Years of the Bled eConference: Themes and Impacts

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### Abstract

*The Bled eConference is the longest-running themed conference associated with the Information Systems discipline. The focus throughout its first quarter-century has been the application of electronic tools, migrating progressively from Electronic Data Interchange (EDI) via Inter-Organisational Systems (IOS) and eCommerce to encompass all aspects of the use of networking facilities in industry and government, and more recently by individuals, groups and society as a whole.*

*This paper reports on an examination of the conference titles and of the titles and abstracts of the 773 refereed papers published in the Proceedings since 1995. This identified a long and strong focus on categories of electronic business and corporate perspectives, which has broadened in recent years to encompass the democratic, the social and the personal. The conference's extend well beyond the papers and their thousands of citations and tens of thousands of downloads. Other impacts have included innovative forms of support for the development of large numbers of graduate students, and the many international research collaborations that have been conceived and developed in a beautiful lake-side setting in Slovenia.*

**Keywords:** eCommerce, eBusiness, refereed papers, proceedings, impact measures

### 1 Introduction

The Bled eConference was first held in June 1988 and has been held annually since then, always on the edge of the lake of Bled, beside the Julian Alps, in north-western Slovenia. It has been organised throughout by the Faculty of Organizational Sciences at the University of Maribor, located at nearby Kranj. It has attracted international participants since 1989, has been a fully international event since 1990, and has included a refereed research stream since 1995. The Proceedings include over 1,000 papers, with 773 since 1995 having been fully-refereed.

The information systems (IS) discipline can be reasonably regarded as having come into existence in 1965-67 (Clarke 2008c). In the IS discipline and associated research domains, only a very few conference series are of longer standing than Bled – HICSS since 1968, the IS Research Seminar in Scandinavia (IRIS) since 1978, and ICIS since 1980. Two other major

series emerged in the years following the establishment of Bled – the Australasian Conference in IS (ACIS) since 1990, and ECIS since 1993. All of those events, however, are generic IS conferences. So Bled is very probably the longest-running thematic conference series in or associated with the IS discipline. Hence an examination of the conference's themes and sub-themes is warranted by its historical and substantive significance, not merely for symbolic or celebratory reasons.

This paper reports on the results of an assessment of the topics addressed by papers that have been presented at the conferences and published in the Proceedings. It commences with a brief history, a depiction of the nature of the conference-series and community, and descriptive statistics. This is followed by analyses firstly of the themes addressed by papers during the first 24 years, and secondly of indicators of the conference's impact.

## **2 The International Nature of the Conference**

This section briefly presents the origins of the series and the nature of the conference as a whole. It then provides data about the Research Stream since 1995, which is the primary focus of this paper.

### **2.1 The Conference as a Whole**

Until the second half of 1991, Slovenia was part of Yugoslavia, and hence part of the Soviet bloc. The 1988 conference was local, but in 1989 it heavily involved three leading US academics, Milt Jenkins (University of Baltimore), Doug Vogel (then of the University of Arizona, subsequently of the City University of Hong Kong), and Don McCubrey (University of Denver). The 1990 and 1991 conferences attracted increasing numbers of academics from Europe and beyond, particularly Australia.

The country's brief war of independence was fought a few weeks after the 1991 conference. From 1992 onwards, conference chair Joze Gricar created a focal point for many communities of interest. EDI in international trade, including in ports and in Customs, was complemented by the application of electronic tools in local and national governments, in regional economies, and along trade routes. Until 1994, plenary sessions featured parallel translations between English and Slovene; but Slovenes are multi-lingual, and the conference language has been English since then. Through the 1990s, the Bled eConference played a significant role in the process of Slovenian democratisation, economic change, and entry as a full member of the European Union.

A distinctive feature of the conference, throughout its history, has been the successful marriage of Industry and Research Streams. Academics from around the world have always found themselves rubbing shoulders with Eurocrats from Paris and elsewhere, and IT and management professionals from industry and government in Slovenia and the nearby region. The conference has also had several other innovative features, which are discussed below.

As the scope of 'electronic' moved beyond data interchange (EDI), and as communications matured from private and value-added networks (VANs) to the Internet, and as the 'e' prefix was prepended to commerce, and then to government, and to services, and to publishing, and onwards to voting and democracy, Gricar moved the Bled conference with it. The community of Bled participants expanded, and the countries whose academics contributed to the conference multiplied.

The Conference has always been held under the auspices of the Faculty of Organizational Sciences of the University of Maribor at Kranj. It has enjoyed strong support from successive Deans, from the University as a whole, from successive Slovenian governments, and from the European Commission. Faculty-members, staff and senior students have invested a great deal of time, effort and imagination into the planning, preparation, logistics and management of the conference, in 25 successive years, so far. The corporate sponsors include several that have been supporters over an extended period of time, including, in alphabetical order, Adria Airlines, Gorenjski Glas, IBM, Microsoft, Oracle, the Slovenian Chamber of Commerce, SRC.SI and Union Beer.

Chairmanship of the Conference has always been performed by a senior academic of the Faculty. Gricar was founder and Conference Chair from 1988 to 2008. Commencing in 2009, the most recent four conferences have been chaired by Andreja Pucihar.

## **2.2 The Research Stream**

The Conference has featured an Industry Stream throughout its life, in recent years described as a Business and Government Panel Track. Papers with a research orientation were included from the beginning, and a community of academics developed who welcomed the interleaving of research, professional and executive perspectives on electronic communications.

In 1995, the Research Stream was formalised into a fully refereed conference. The c. 250 formal papers published between 1988 and 1994 have been succeeded by 773 refereed papers during the 17 years 1995 to 2011 and will be joined by 42 more at the 25th conference in June 2012.

For many years, the style was that of a community symposium, intended to be inclusive. For the last 5 years, since 2008, the threshold for acceptance has been raised, and the format tightened to 14 sessions of 3 papers each, with a maximum of 2 parallel research sessions, complemented by several academic panel sessions, a Student ePrototype Bazaar, a Graduate Student Consortium, plenaries and 2-4 parallel industry sessions.

The policy was adopted at the outset to seek diversity in the Chairmanship of the Research Stream. The Stream Chair is appointed two years ahead, so that the current year's chair has a colleague working with them. This has had the desirable effect of achieving continuity in flavour, style and values, while ensuring that changes in the conference community's interests have been detected and reflected. During the 18 years, 16 different individuals have performed the Program Chair role, 9 of them male and 7 female. See Appendix 1. The Chairs' affiliations at the time have been with universities in 9 different countries. Of the 19 occasions 1995-2013, the Chair has been provided 10 times by a European country (5 times by Germany and once each by Greece, the UK, the Netherlands, Finland and Switzerland), with 4 from the USA, 4 from Australia, and 1 from Hong Kong.

There has been a pronounced trend away from sole-authored papers (from 48% down to 14%) and towards teams of 3 or more authors (12% to 48%). Across the years, 21% of papers have had a sole author, 42% have been dual-authored, 26% have had three authors, 8% have had four authors, and 3% (25 papers) have had 5, 6 or 7 authors. Of the 13 papers that have won the Outstanding Paper Award to date, only two have been sole-authored, and they were very early in the Award's history.

Authorship and community participation have had a strongly international flavour since 1990, and particularly so since 1995. Table 1 summarises the national and institutional affiliations

of authors during the period. On average, 17 countries have been represented on each program (range 11 to 23), together with 55 universities (range 24 to 94), with a further 9 authors having an affiliation other than a university (range 2 to 19).

	<u>Papers</u>	<u>Authors</u>	<u>Countries</u>	<u>Universities</u>	<u>Other Affiliations</u>
1995	25	41	11	26	2
1996	32	70	12	24	3
1997	33	79	15	41	9
1998	43	105	15	58	4
1999	44	92	16	48	4
2000	48	119	21	61	5
2001	50	109	22	62	16
2002	49	119	23	57	13
2003	71	151	21	94	6
2004	52	114	20	66	13
2005	45	105	17	60	8
2006	52	112	20	55	11
2007	60	148	20	76	11
2008	45	89	13	50	16
2009	42	96	15	61	9
2010	41	92	14	57	4
2011	42	108	15	39	19

Table 1: Numbers and Authorship of Research Papers

A total of 49 countries have been represented on the program during the 17 years. At least dozen further countries have been represented on the delegates lists, taking the total past 60 countries in all. Authors' countries of affiliation have included 31 European countries, comprising all Western and Central European countries except for four very small republics and two islands, and many Eastern European countries. The USA, Canada, Australia and New Zealand have been strongly represented. From South and Central America, 3 countries have been represented. From East Asia, 7 nations have been represented, plus India and Oman. To date, however, the only African nations on the program have been South Africa and Tunisia.

The national affiliations that can be seen most often among the almost 1800 authors' names on the 773 papers have been Australia 389 times (22%), The Netherlands 260 (15%), Germany 234 (13%), UK 100, Finland 95, USA 71, Ireland 68, Greece 66 and Switzerland 61 times.

A further important international and multi-cultural element has been the diversity of graduate students who have participated. René Wagenaar brought students with him for conference experience as early as 1992, and invited students from the University of Maribor back to his then institution, Erasmus University in Rotterdam. Paula and Paul Swatman in particular brought many students across the world from Australia during the following years. Similarly, Niels Christian Juul brought students from the Copenhagen Business School. There were also fruitful collaborations among students from the University of Maribor with US universities, especially Baltimore, and with Australian universities, including Deakin.

### 3 Thematic Analysis

This section documents the themes that the Bled eConference has addressed, commencing with the overall conference titles, and then delving down into content analysis of paper titles, abstracts and full-text. There is only a limited IS literature relating to thematic analysis of conference-series, but see Galliers & Whitley (2002, 2007, 2012).

#### 3.1 Conference Themes

The broad themes that the series has encompassed are shown in Table 2, and Appendix 2 lists the title of each conference.

<u>Title</u>	<u>Years</u>	<u>No. of Conferences</u>
Electronic Data Interchange (EDI)	1988-1992	5
EDI and Inter-Organizational Systems	1993-1995	3
Electronic Commerce	1996-2004	9
eConference	2005-2012	8

Table 2: Broad Conference Themes

The conference's initial focus was on Electronic Data Interchange (EDI). This was an endeavour to achieve reliable and efficient batch transfer of transaction data between organisations. After five years, the title was broadened to encompass Inter-Organizational Systems (IOS) as a whole. This period coincided with the liberalisation of access to the Internet. During the following three years, networked applications broadened in scope, and hence the nine conferences between 1996 and 2004 ran under variants of the term Electronic Commerce. By 2005, electronic applications were moving well beyond organisational boundaries to involve individuals at one level, and societies at another. To accommodate this, the most recent eight conferences have been under the catch-phrase 'eConference'.

Tag-clouds are tools intended to assist in visualising the frequency of words within a collection of text. Utilising the tag-cloud approach, the Conference Organisers produced the image in Figure 1 as a way of encapsulating the intended scope of the Bled eConference 1988-2012.



Figure 1: Tag-Cloud for the Conference's Themes

#### 3.2 Keywords Within Titles and Abstracts

Manual analysis of the paper titles during the early, unrefereed period, 1988-94, showed that the term 'EDI' dominated, although 'commerce' was emergent during the early 1990s. This

sub-section reports on a series of studies of the terms in the titles and abstracts of the papers published during the refereed period, 1995-2011. The source materials are in Appendix 3.

### (1) Tag-Clouds

In Figure 2, the tag-clouds are displayed for all titles during the period since the Research Stream became fully refereed. The number of occurrences of the string in the titles of the 773 papers is shown in the tag-cloud. The cut-off was arbitrarily set at 15 occurrences – in order to achieve inclusion of the terms 'government' and 'consumer'.

The results show the strengths and weaknesses of the tag-cloud notion. There is a need to cope with phrases (e.g. 'electronic commerce' and 'social media'), to declare equivalence (ecommerce, e-commerce, electronic commerce), to exclude generic terms (e.g. 'information' and 'system'), and to allow for multiple usages of the same term (such as 'model' and 'framework').

Between them, the terms business (94), commerce (84), industry (42), SMEs (29) and enterprises (23) total 272 uses of tags related to organisational interests. This has completely dominated government (16), but also customer (23), public (16), consumer (15) and social aspects (19), which total only 89 – although the term services (59) does extend across both sectors. The counts for the terms Internet and mobile were very similar (both 60). As the following analysis confirms, however, the periods during which they were of major interest were different.



Figure 2: Tag-Cloud for Paper-Titles – 1995-2011

It would be challenging to grasp change across a set of 25 or even a dozen such clouds. In order to reduce the data to a manageable scale, the proceedings since 1995 were grouped into 3-year sets. The tagcrowd.com site was used to display the most-frequent 20-30 terms in the titles within each group. The resulting tag-clouds are provided in Appendix 4. The primary tags identified among the 773 refereed papers during the refereed period, 1995-2011, are summarised in Table 3. Generic terms such as management, system and framework were ignored. The peak-years for each tag are highlighted using bold-face type.

An analysis of the papers' Abstracts was undertaken, in order to produce a second set of tag-clouds. The resulting tag-clouds are provided in Appendix 5. There proved to be little new information in the tag-clouds for the Abstracts in comparison with those for the Titles in Appendix 4. One important reason is that the process counts occurrences of the word in the entire set, not occurrences of instances of Abstracts in which the word occurs. For many purposes, this constitutes noise rather than information.

<u>Tag</u>	<u>1995-96</u>	<u>1997-99</u>	<u>2000-02</u>	<u>2003-05</u>	<u>2006-08</u>	<u>2009-11</u>
EDI	<b>23</b>	9	.	.	.	.
electronic	<b>21</b>	<b>68</b>	<b>32</b>	<b>16</b>	9	7
commerce	15	<b>38</b>	<b>24</b>	12	.	.
business	8	<b>17</b>	11	<b>28</b>	<b>22</b>	8
Internet	4	<b>17</b>	<b>20</b>	9	.	.
case	3	9	<b>16</b>	<b>17</b>	<b>15</b>	9
Web	.	.	<b>10</b>	.	.	<b>7</b>
mobile	.	.	9	<b>20</b>	<b>23</b>	8
trust	.	.	<b>10</b>	<b>11</b>	.	.
online	.	.	<b>11</b>	<b>14</b>	.	.
ebusiness	.	.	9	<b>15</b>	.	.
eCommerce	.	.	6	<b>12</b>	.	.
SME	.	.	<b>12</b>	7	8	.
adoption	.	.	.	<b>15</b>	7	9
health	.	.	.	.	.	<b>9</b>
social	.	.	.	.	.	<b>15</b>

Table 3: The Primary Tags in Paper-Titles – 1995-2011

## **(2) Manual Inspection**

To complement the automated approach, manual analyses were undertaken. These suffer the disadvantages of unreliability, observer bias and unrepeatability. There is a key advantage over the automated approach, however. This is the ability to utilise knowledge of the IS discipline and the relevant research-domains in order to filter out common words, to cope



with multi-word terms, to recognise approximate synonyms, and to distinguish unrelated uses of the same term.

Consideration was given to using an existing classification scheme. Candidates include those of Barki & Rivard (1993) and Banker & Kauffman (2004). Such schemes are, by intent, comprehensive, and therefore relevant to an assessment of a generic venue such as ECIS (Galliers & Whitley 2002, 2007, 2012). On the other hand, the Bled conference is themed. In particular, a large proportion of papers would inevitably be classified under Banker & Kauffman's and Galliers & Whitley's 'Electronic Markets' category.

No readily-available set of sub-categories within 'Electronic Markets' was identified. In any case, the topics at Bled conferences have been dynamic, with noticeable changes year by year – as demonstrated by the tag-analysis in Table 3 above. The analysis was therefore undertaken without the benefit, and constraint, of a pre-determined set of categories.

Visual inspection was undertaken of the titles of the 773 papers in the refereed Proceedings for the period 1995-2011. A total of 63 keywords were identified, with 972 mentions, for an average of 1.25 keywords per paper. The keywords were then clustered, informally, on the basis of the author's familiarity with the subject-matter and his particular world-view. No authoritative basis for the clustering is, or can be, claimed. This gave rise to 34 keyword-clusters within 3 major groups, and provided the basis for the detailed counts in Appendix 6.

The 15 clusters with the largest number of papers are listed in Table 4, together with the periods in which they they were most popular.

<u>Keyword-Clusters</u>	<u>Main Period</u>	<u>No. of Mentions</u>
<b>Categories of eBusiness (58.7%)</b>		571
EDI	1995-1998	41
eCommerce	1996-2001	140
eMarkets, Directories, Auctions	1998-2002	51
eGovernment	2004-2008	35
SMEs	1998-2002	53
MCommerce, Mobile Apps	2002-2009	56
eMarketing, CRM, Consumer Behaviour	2003-2011	55
eHealth	2006, 2011-11	32
Other (8 clusters)		108

<b>Corporate Perspectives (22.2%)</b>		<b>216</b>
Inter-Organisational Systems	1995-1998	24
Supply Chain, ECR, Intermediaries	1998-2003	37
Business Models	2003-2005, 2009	29
BPR, Transformation, alignment, integration	2003-2007	42
Strat Alliance, Bus Networks, Virtual Orgns	2004, 2007-09	37
Other (4 clusters)		47
<b>Research Topics (19.0%)</b>		<b>185</b>
Adoption, Impediments, Success Factors	2001-2007	52
Trust, Reputation, Risk	2001-2004, 2010-11	37
Other (7 clusters)		96

Table 4: The Primary Keywords in Paper-Titles – 1995-2011

Almost 60% of keyword-occurrences were Categories of eBusiness, with EDI giving way early in the period to eCommerce – which was easily the largest cluster-count, with 14% of the total. That in turn gave way to eGovernment, and then Mobile, with marketing and then health dominating very recently. Corporate Perspectives accounted for 22% of keyword-occurrences, with interest focussed on IOS, then supply chain, and then business models and business strategy factors. The remaining 19% of keyword-occurrences encompassed a range of Research Topics, of which the adoption and trust clusters were the most prominent.

The effort involved in manual inspection of the papers' Abstracts was well in excess of the available resources, and was not undertaken.

### 3.3 Keywords within Full-Text

The full-text of papers from 1988 to 1997 were not available in machine-readable format. This includes the first three refereed conferences. Searches by keyword-in-fulltext were feasible on the Bled eConference site for 1998-2011, and in the AIS eLibrary for 2001-10.

Content analysis of the full-text was desirable, but beyond the time and resources available during the preparation of this paper. Some preliminary experiments were performed, however. For example, a search using <smartphone> identifies 7 papers, 1 paper in each of 2005-11 except for 2008 (0) and 2011 (2), i.e. 1, 1, 1, 0, 1, 1, 2.

A search using <Facebook> indicates a surge in interest. The first paper in 2007 was followed by 4 in 2008, 4 in 2009, 8 in 2010 and 12 in 2011, i.e. 1, 4, 4, 8, 12. In the last four conferences, this represents 10%, 10%, 19% and a remarkable 28% of the papers.

A search using <Google> gave rise to the following inferences:

- although Google was formed in 1998 and achieved dominance of the search-market in many countries by 2002-03, the first mention in a Bled paper appears to have been in 2004
- although the company-name has since been mentioned in 58 Bled papers (2, 1, 11, 11, 9, 7, 5 and 12 times in 2004-11), it has been a focal point in only 10 papers, 5 of them in 2006 (3 re search and 1 each re copyright and privacy), 1 each in 2007 and 2008 (re the market for advertising), and 3 in 2011 (2 re cloud computing and 1 re copyright)

It appears that particular services may be of interest to Bled authors only during a brief window, and that window may be some time after the services have been launched and achieved market penetration.

The period of currency of now-expired or passé products, standards and memes can also be analysed. For example, Digicash had two mentions in 1998 and 3 in 1999, plus 1 retrospective mention in each of 2003 and 2006. ebXML peaked in 2002-03 (3 and 5 papers), but also had mentions earlier, in 2000-01 (1 each), and later, in 2004 (1), 2006 (3) and 2008 (1). EDIFACT was an important topic prior to the period available for full-text analysis, but interest in it fell after 1998-99 (7 and 10 papers), with some mentions every year until 2010 (3, 3, 3, 4, 3, 2, 4, 1, 2, 1, 1), but – probably for the first time ever – none in 2011.

These experiments confirm that undirected analysis by means of visual examination is very challenging and time-consuming, and the results are likely to be subject to considerable variation depending on the researchers and their preoccupations and motivations. A more promising approach may be computer-supported analysis, such as that reported elsewhere in this Special Section (Dreher 2012).

## 4 Impact Analysis

This section utilises available sources to gauge the impact that the conference has had. The first sub-section identifies a variety of channels through which the conferences have had an impact on the ecommerce and related research domains. The second sub-section exploits the few available metrics.

### 4.1 Impact Channels

A conference-series makes contributions to the discipline, to the profession, and to individuals, and Bled has done so through multiple channels.

#### (1) The Proceedings

From 1988 to 2000 (13 years), the Proceedings were published in hard-copy form only. In some years, documents relating to the parallel Industry Stream were published in the same Volume, and in some years as a separate Volume. Since 2001, the Proceedings have been published on CD in PDF format (12 years).

Recent years' Proceedings are also accessible online, in two locations, open-content licensed from the conference web-site (currently 1998-2011), and behind a subscription-based paywall in the AIS eLibrary (currently 2001-2011).

## **(2) Special Sections for Leading Journals**

Program Chairs have worked with the authors of selected papers to produce Special Sections in leading journals. This has resulted in 53 of the 773 papers (7%) being subsequently upgraded to journal level.

During 1995-2006, a collaboration with the leading International Journal of Electronic Commerce resulted in 9 Special Sections and 36 papers. The journal Electronic Markets published a Special Section of 3 papers developed from the 1999 Bled conference, and since 2007, a collaboration with that journal has resulted in a further 4 Sections and 14 papers to 2010, with another scheduled for 2012. The issues and papers are indexed on the Research Stream web-page and in Appendix 9.

Many Bled papers are known to have been improved by their authors and submitted elsewhere (not least because some authors have declined the invitation to submit revised versions for Conference-derived Special Sections). A reasonable speculation might be that articles further developed from an additional 40-80 conference papers (5-10%) have been subsequently published in journals.

## **(3) Graduate Student Consortia**

PhD Consortia have gradually become mainstream features of a range of conferences. The Bled Graduate Student Consortium, led by Milt Jenkins, commenced in 1990, and ran for over a decade until 2002, supported by the Slovenian company KRKA. It contributed greatly to the development of early-career researchers. The Consortium series was revived in 2011 under Doug Vogel.

## **(4) The Student ePrototype Bazaar**

Another conference feature that has benefited generations of graduate students is the Student ePrototype Bazaar. This combines a 'trade fair' and 'poster session', and enables both graduate and advanced undergraduate students to present their prototypes and discuss their ideas with conference participants. This ran from 1997 to 1999 in the Slovene language only, and has run annually since 2000 in English. It has been named for René Wagenaar since 2007, following his premature death. Its coordinators in recent years have been Harry Bouwman from Delft University of Technology and Johan Versendaal from the University of Applied Sciences Utrecht.

## **(5) Research Collaboration**

Research collaboration has been a feature throughout Bled's history, with many research-teams formed, and many projects conceived and developed beside the lake. The conference has also provided a convenient meeting-venue for many existing project teams, and for Editorial Boards, in particular of the journal Electronic Markets.

In addition, many papers presented at the Conference have featured authors from multiple institutions. As shown in Table 5, on average 11 papers at each conference (c. 25%) have been multi-institution, with a range from 4 to 21 (13%-36%).

The international nature of the Research Stream is confirmed by the fact that about two-thirds of the multi-institutional teams have involved authors from different countries (c. 15%), with a range from 1 to 13 (4%-26%). Within international authorial teams, enormous diversity is evident. Authors have come from 30 different countries, most commonly Germany (53 times), Australia (33), USA (21), The Netherlands (18), Switzerland (17), UK (17), Ireland

(12) and Denmark (10). The contributions to an appreciation of cultural differences across economies, societies and language groups has been enormous.

#### **(6) Quality Assurance Initiatives**

The conference has always valued quality papers. The first concrete step taken to encourage and assure ongoing improvements in quality was the move to full refereeing of submitted papers, in 1995. The program was expanded in some years, with a particular aim of assisting authors from countries with a less well-established research tradition to gain experience in the conduct, preparation and presentation of research. In recent years, however, the threshold for acceptance has been raised, by limiting the available slots, resulting in acceptance rates in the range of 30% to 50%.

Two further measures have been adopted to encourage quality in papers submitted to the Conference.

One was the establishment of an Outstanding Paper Award. Since 1999, the opening session at each conference has re-affirmed the criteria applied in selecting the winner, as a means of signalling the desirable characteristics of Bled papers. The winners of the first 13 awards, 1999-2011, are listed on the conference web-site and in Appendix 7. The authors' affiliations are irrelevant to the decision made each year, but considerable diversity has been evident, with the 40 authors of the first 13 award-papers having their affiliations at the time in 9 different countries.

	<u>Papers</u>		<u>Papers with Authors in Different Institutions</u>	<u>%</u>		<u>Papers with Authors in Different Countries</u>	<u>%</u>
1995	25		4	16		2	8
1996	32		5	16		1	3
1997	33		11	33		6	18
1998	43		13	30		7	16
1999	44		7	16		4	9
2000	48		12	25		7	15
2001	50		13	26		11	22
2002	49		10	20		2	4
2003	71		21	30		11	15
2004	52		13	25		8	15
2005	45		12	27		9	20
2006	52		7	13		6	12
2007	60		15	25		13	22
2008	45		8	18		6	13
2009	42		15	36		11	26
2010	41		14	34		9	22
2011	42		11	26		5	12
<b>Avge</b>	<b>45</b>		<b>11</b>	<b>24</b>		<b>7</b>	<b>16</b>

Table 5: Collaborative Authorship – 1995-2011

The other initiative has been the provision of guidelines for reviewers, formalised in Clarke (2007). These stress the importance of such aspects as clarity, constructive tone, and 'actionable advice'. Especial weight is placed on the quality factors that are important in papers for a conference that is instrumentalist in its orientation and features both research and industry streams:

- **R** elevance, or Real World Quality
- **A** mbition, or Contribution Quality
- **R** igour, or Academic Quality
- **E** ase of Access, or Presentation Quality

## 4.2 Impact Metrics

There are few readily-available ways to measure the impact of even a single conference, let alone a long series of them. This sub-section presents data from two analyses, and considers a third, experimental approach.

## (1) Citation Counts

A conventional approach to impact measures is to count the number of citations each paper receives. Citations may be subject to more or less strict rules regarding the nature of the venue in which the citation arises, e.g. any publication, papers in refereed venues only, or papers in selected refereed venues only (Clarke 2008a, 2008b).

The Thomson/ISI/Web of Science collection has long been unfriendly to the IS discipline, and, although the inherent bias has recently been relaxed, it has been omitted from the study. Google Scholar is much more inclusive than Thomson, and although its catchment is somewhat indiscriminate, it is a far more useful tool for the present purpose.

Google Scholar was accessed in June 2011, and again in November 2011, December 2011 and March 2012. The 'permanent beta' nature of Google generally, and Google Scholar in particular, was evident from those analyses. There appear to have been further increases in Google's catchment during the second half of 2011, although this may have stabilised by the end of the year. The service is highly unstable, only limited documentation is available, repeats of experiments seldom produce identical results, and search methods have to be continually changed in order to re-discover references that had previously been found. The level of confidence in the following comments is therefore only moderately high.

In June 2011, Google Scholar showed about 2,300 citations of Bled eConference papers. See Appendix 8. By November, this had grown to about 2,900 citations, by December 2011 to around 3,250 citations, and by March 2012 to about 3,400. After allowing for increases in Google's catchment, the accretion-rate from newly-published papers would appear to be currently about 400 p.a. or about 10-15% p.a.

In common with academic papers generally, most papers achieve very few citations, and only a small percentage receive an appreciable number. About 230 of the 773 papers (30%) appeared to have achieved at least 1 citation. The top 3 papers in March 2012 showed citation-counts of 644, 421 and 109, or about one-third of the total. A further 8 papers had counts in the range 40-65, 30 in the range 20-40 and 40 in the range 10-20. The top-50 list was heavily biased towards older papers, c. 1998-2004.

Based on a comparative analysis conducted on June 2007 data, Clarke (2008a) suggested that, at that time, 500 citations indicated a 'classic' article, 75 a 'high-impact article', and 40 a 'significant-impact article'. Growth has to be allowed for since then, from both subsequently-published articles and increases in Google Scholar's catchment area. In order to assess Bled conference papers against these scales, updated thresholds of 600, 90 and 50 were postulated, and it was assumed that the patterns for the eCommerce research domain are broadly comparable with those for the IS discipline.

On that basis, 1 Bled conference paper was just in the 'classic' range (> 600 citations), 1 was high in the high-impact range (> 400), 1 was low in the high-impact range (> 90), 3 were in the 'significant-impact' range (> 50), and a further dozen papers had at least 35 citations. On one hand, this appears low. On the other, the IS discipline and many other disciplines active in the eCommerce research domain have a strong tendency to cite articles published in journals rather than in conference proceedings.

An analysis was undertaken of the Google citation counts of the 53 papers that originated as Bled conference papers, but revised versions of which were published in 9 Special Sections in the International Journal of Electronic Commerce (IJEC) and 5 Special Sections in Electronic Markets (EM). See Appendix 9. In August 2011, this showed a total of 1,875

further citations. Only the top 3 papers had achieved the (arbitrary) threshold of 90 for a high-impact article, with 285, 200 and 134 citations. A further 8 of the 53 had achieved the 'significant-impact' threshold of 50. (A repeat search for a sample of the papers in December 2011 showed that they had gained 20-25% in their citation-counts during the intervening 4 months). The most recent paper in the top 3 is from 2006. This is consistent with the notion of an indicative 5-year lag before an article accumulates an appreciable list of citations.

In only 6 of the 53 cases have the conference papers underlying the journal articles attracted 10 or more citations, for 110 citations in total. In one case, the journal article has 11 citations and the conference paper 20, but in all others the journal article has the higher count. The first-ranking article shows 285 citations for the journal article but only 2 for the conference paper; whereas the second-ranking journal article has 200 citations compared with 33. One factor in this relationship may be the relatively short exposure of the conference paper alone, which has varied between 1 and 2 years.

## **(2) Download Counts – 2008-11**

The second readily-available metric is the Download Count from the AIS eLibrary (AISEL). This service had only been available for 3 years at the time the statistics were extracted in mid-2011, and only the papers for 10 of the 24 conferences had been loaded at that stage. The papers therefore reflect between 9 months and almost 3 years of downloads. The total to that date was about 10,000 downloads.

Across the whole of the AIS eLibrary, the top 1% of papers were downloaded 352 or more times and the top 5% were downloaded 167 or more times. An arbitrary cut-off-point of 50 downloads was selected, in order to focus attention on those papers that, on this basis, were the most impactful. This identified 40 papers, of which the top 2 are in AISEL's top 1%, with 693 and 519 downloads, and the next 3 are within its top 5%, with 269, 247 and 169 downloads. See Appendix 10.

As shown in Table 6, there is a scattered pattern across the 10 years 2001-10.

<u>Year</u>	<u>DateLoaded</u>	<u>Months Available</u>	<u>Downloads</u>
2001	Aug 2008	34	1,110
2002	Aug 2008	34	442
2003	Aug 2008	34	1,782
2004	Aug 2008	34	574
2005	Aug 2008	34	745
2006	Feb 2009	28	536
2007	Sep 2009	21	1,247
2008	Sep 2009	21	814
2009	Sep 2009	21	1,844
2010	Oct 2010	9	684
TOTAL			9,778

Table 6: AIS eLibrary Download Counts – 2001-2010

All but 8 of the 506 papers had been downloaded at least once, with an average of 20 downloads per paper. Across the whole of the AIS eLibrary collections, the average downloads per paper was 47; but many others collections have been accessible for much longer periods than have the Bled Proceedings, and journal articles generally average considerably higher download-counts than conference papers.



Interestingly, the two stars from the Google Scholar Citation Count study (both of which were published in 2002) have had only modest downloads from the AIS eLibrary. The third-ranking citation-count paper (published in 2003) is the highest-ranking of any Bled paper based on AIS eLibrary downloads. The fourth-, fifth- and sixth-ranking papers by citation-count again do not score highly on AIS eLibrary downloads. From the other perspective, the second-, third- and fourth-ranking by AIS eLibrary downloads (published in 2003, 2009 and 2009) do not score highly on citation-count.

An inference that might be drawn is that the two metrics are measuring impacts of quite different kinds. Citations counted by Google Scholar are indicative of use by researchers, whereas AIS eLibrary downloads may be predominantly for teaching purposes rather than research. Alternatively, the long lag-time from research to publication may explain some of the variance. In that case, citation counts for Bled papers could be expected to lift during 2012-15. Another possibility is that older papers' time may have passed, and yet another that the 'citation stars' are valued, and cited, by people outside the IS discipline.

### **(3) Hit-Counts on Personal Web-Sites**

Papers are accessible in a variety of repositories, including:

- the repository of the venue within which it was subjected to review, most commonly a journal, a conference, a book or some other one-off collection. The Bled eConference operates its own repository, containing all Proceedings since 1998
- the repository/ies of the professional association(s) or academy/ies of the author(s) of the paper. The Bled eConference is associated with the Association for Information Systems (AIS), and has loaded all papers since 2001 into the AIS eLibrary
- the repository/ies of the employer(s) of the author(s) of the paper, commonly universities
- the repository/ies of the author(s) themselves

The third and fourth of these give rise to an additional possible impact metric: hit-counts on employer and personal web-sites. Few university repositories appear to publish hit-counts. This section accordingly focusses on authors' own web-sites.

Authors have the legal capacity to publish copies of the vast majority of their research papers. In some cases, they own, or co-own, the copyright in their papers. In other cases, they have an at least implied licence, and in many cases, as a result of the open access movement, an explicit licence from the copyright-owner to do so (Clarke & Kingsley 2009).

On the one hand, many authors may regard the reticulation of their articles as being the responsibility of other parties, or they may see the establishment and maintenance of a rich personal web-site as being too onerous. On the other hand, many mid-career researchers have a substantial corpus of works, and both mid-career and early-career researchers with ambition seek opportunities to promote their work and their capabilities.

The author was an early mover in the personal web-site arena, having launched his site in 1994-95. Since then, the site has accumulated over 35 million hits. The author has had 16 papers published in 15 of the 24 Bled conference Proceedings to date, all of them also published on his web-site. An experimental investigation was undertaken, seeking an understanding of the impact of self-publication of scholarly papers on authors' own web-sites. The raw data is provided in Appendix 11, and interpretations of the data are in Appendix 12. These show that the author's repository of 16 Bled papers gains well in excess of 10,000 hits

p.a. (excluding hits by search-engine robots), and has a cumulative hit-count of over 230,000, with several individual papers well in excess of 20,000.

For reasons discussed in Appendix 12, great care is needed in drawing inferences from this data. However, it is clear that the number of hits in the personal web-repository is far greater than the download-counts within the AIS eLibrary – by 15-20 times. The sources of the hits include not only accesses by researchers but also by enrolled and informal students, and by people in business and government. Depending on the intended audience, the value of accesses by people other than academic researchers may need to be heavily discounted – although less so in the case of a venue with avowedly instrumentalist intent such as the Bled eConference. This single-case study has shown that at least these 16 of the 773 Bled papers have had considerable additional impact through exposure on a personal web-repository.

It is unclear how prevalent personal web-sites are among IS researchers in general and Bled authors in particular. In order to provide some insight into the extent to which Bled authors operate their own web-repositories, searches were conducted in relation to the authors of the top few Bled papers as measured by Google citations for conference papers, by Google citations for journal articles developed from Bled conference papers, and by AIS Downloads. Mere lists of publications, and even access to Abstracts, were excluded from the count. The sample is intentionally biased, in that it comprised successful authors – and in most cases senior authors. Such authors would appear to be more likely than others to maintain their own repositories – although contrary factors exist, such as the likelihood that younger authors are more technically-capable and that they perceive the need to try hard to gain exposure. The results are summarised in Appendix 13.

Of the 29 authors in the sample, 7 were found to operate repositories that were readily located and that contained copies of at least a considerable proportion of each author's papers. In all cases, they were pages or sub-sites within a university domain, which could be expected to have a moderately high page-rank with search-engines. Given that the papers would rank reasonably highly in searches, these authors' Bled papers may have gained considerable numbers of downloads from the authors' own web-repositories.

## **5 Conclusions**

This paper's first purpose was to summarise the nature of the Bled eConference. It is an international event, located in an Eastern European member-state of the European Union. Its organisers have actively pursued European themes, but have also attracted consistent participation from elsewhere, particularly Australia and North America. A great deal of collaborative activity has been stimulated and supported, across institutions, and across national borders.

The second purpose was to present analyses of the themes that have been nominated by Program Chairs and that have been pursued by authors. Syntactic analysis using both manual means and simple electronic tools has identified the emergence, rise and fall of many topic-areas. The early focus on EDI and then eCommerce has been progressively replaced by a much broader set of applications of electronic tools. Similarly, the early dominance of business interests and economic dimensions has been progressively complemented by a still-growing emphasis on the social dimensions.

Experimentation showed that it is already feasible to apply automated full-text word and string searching to support specific purposes, such as establishing the extent to which a

particular topic has been previously addressed in the Bled literature, and identifying particular papers relevant to a current research project. It appears that more generalised tools with greater capacity for semantic analysis may be emerging (Dreher 2012). These capabilities augur well for the gradual, if greatly belated, emergence of a 'cumulative tradition' (Keen 1980).

A third intention was to evaluate the conference's impacts. A considerable number of channels has been identified through which the first 25 years of the conference have had impacts on research, on researchers, on students, and on business and government. Over 5,000 citations of the 773 papers and 53 journal articles published to date have been supplemented by over 10,000 downloads from the AIS repository, and hundreds of thousands of hits on the papers in the authors' own repositories. The conference organisers' strategies of open-content licensing and multiple channels ensure that these counts will continue to grow.

The mechanics of citation- and download-counts are of significance. On the other hand, the Bled eConference is above all a community. Generations of participants have migrated from graduate student, to early-career academic, to senior member of the profession. They have considered a broad range of information technologies applied to business, government and society, have appreciated cultural differences, and have developed international linkages and collaborations. The first 25 years have delivered enormous personal and community value, and laid the foundation for the next decades of change.

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## **Acknowledgements**

The assistance is gratefully acknowledged of Gregor Lenart of the University of Maribor, who provided extracts from the Bled Conference database, and of Andy Schwarz, VP Technology for AIS, who provided statistical information on downloads of Bled papers from the AIS eLibrary. The comments of the reviewers were very helpful in tightening the paper's focus and refining the analyses.

## **Appendices**

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- Appendix 4: Tag-Clouds for Bled Paper Titles 1995-2011
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## **The First 25 Years of the Bled eConference**

### **Appendix 1: Research Stream Chairs**

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

- 1995 (08) – Roger Clarke, Australian National University, Canberra, Australia
- 1996 (09) – Paula Swatman, Monash University, Melbourne, Australia
- 1997 (10) – Doug Vogel, University of Arizona, Tucson AZ, USA
- 1998 (11) – Georgios J. Doukidis, Athens University of Economics and Business, Greece
- 1999 (12) – Stefan Klein, University of Münster, Germany
- 2000 (13) – Stefan Klein, University of Münster, Germany
- 2001 (14) – Bob O'Keefe, Brunel University, London, UK
- 2002 (15) – Claudia Loebbecke, University of Köln, Germany
- 2003 (16) – Rolf T. Wigand, University of Arkansas at Little Rock, USA
- 2004 (17) – Yao-Hua Tan, Free University of Amsterdam, The Netherlands
- 2005 (18) – Doug Vogel, City University of Hong Kong, China
- 2006 (19) – Pirkko Walden, Abo Akademi University, Turku, Finland
- 2007 (20) – Lynne Markus, Bentley College, Boston MA, USA
- 2008 (21) – Felix Hampe, University of Koblenz-Landau, Germany
- 2009 (22) – Paula M.C. Swatman, University of South Australia, Adelaide, Australia
- 2010 (23) – Hans-Dieter Zimmermann, University of Applied Sciences, St Gallen, Switzerland
- 2011 (24) – Nilmini Wickramasinghe, RMIT University, Melbourne, Australia
- 2012 (25) – Ulrike Lechner, Universität der Bundeswehr, München, Germany
- 2013 (26) – Diane Lux Wigand, University of Arkansas at Little Rock, USA

## **The First 25 Years of the Bled eConference**

### **Appendix 2: Conference Titles**

This is an Appendix to Clarke R. (2012)

‘The First 25 Years of the Bled eConference: Themes and Impacts’

#### **Electronic Data Interchange (EDI)**

- 1988 (01) – Electronic Data Interchange
- 1989 (02) – Electronic Data Interchange
- 1990 (03) – Electronic Data Interchange
- 1991 (04) – EDI: Business Strategy for 90s
- 1992 (05) – EDI: Interorganizational Systems in the Global Environment

#### **EDI and Inter-Organizational Systems**

- 1993 (06) – EDI: Strategic Systems in the Global Economy of the 90s
- 1994 (07) – Electronic Commerce, Electronic Partnership
- 1995 (08) – Electronic Commerce for Trade Efficiency

#### **Bled Electronic Commerce Conference**

- 1996 (09) – Electronic Commerce for Trade Efficiency and Effectiveness
- 1997 (10) – Global Business in Practice
- 1998 (11) – Electronic Commerce in the Information Society
- 1999 (12) – Global Networked Organisations
- 2000 (13) – Electronic Commerce: The End of the Beginning
- 2001 (14) – e-Everything: e-Commerce, e-Government, e-Household, e-Democracy
- 2002 (15) – eReality: Constructing the eEconomy
- 2003 (16) – eTransformation
- 2004 (17) – eGlobal

#### **Bled eConference**

- 2005 (18) – eIntegration in Action
- 2006 (19) – eValues
- 2007 (20) – eMergence: Merging and Emerging Technologies, Processes, and Institutions
- 2008 (21) – eCollaboration: Overcoming Boundaries Through Multi-Channel Interaction
- 2009 (22) – eEnablement: Facilitating an Open, Effective and Representative eSociety
- 2010 (23) – eTrust: Implications for the Individual, Enterprises and Society
- 2011 (24) – eFuture: Solutions for the Individual, Organisations and Society
- 2012 (25) – eDependability

Year	Conference	Paper Title	Authors	Abstract
1998	11th Bled eCommerce Conference	Electronic Payments Systems Development In Thailand	Tanai Khiaonarong	This paper examines the creation of modern electronic payment systems in Thailand. The country's economic expansion led to the modernisation of three major payment systems. The central bank played a very constructive role in investing, developing, enhancing and managing these systems. The case illustrates the reform of rudimentary payment systems in a developing country context, and the lessons are relevant for transitional economies and countries catching-up with technology. The unresolved issues are also discussed, particularly the legal implications, the cheque float problem and the improvement of a highly cash-oriented economy.
1998	11th Bled eCommerce Conference	Internet Commerce Authorities And Digital Cash	Boštjan Brumen, Tatjana Welzer	Digital cash is still at the beginning of the development and use and as such suffers some major deficiencies. This paper describes how to overcome the problem of how to check the identity of an internet merchant. In systems proposed to date there is no assurance that an internet merchant has a legal status allowing him to operate. One can set up virtual store, collect digital money and never provides for the services or goods being paid. To check whether a merchant has a legal status (and thus bears liability) a network of Internet Commerce Authorities is proposed.
1998	11th Bled eCommerce Conference	Internet Banking In Small Regional Norwegian Banks: Strategic Moves Or Mimetic Behavior	Dag H. Olsen, Tom Roar Eikebrokk, Wita Wojtkowski	N/A
1998	11th Bled eCommerce Conference	Modeling Integrated Smart Card Services As Objects: Design Issues And Challenges	Robyn A. Lindley, Warren J. Hough	It can be argued that an important enabling technology for the development of flexible secure card-based applications for use in electronic commerce is object-oriented technology. Object oriented technology offers advantages of flexibility and efficiency for model design. As card technologies like smart card become more integrated with other information systems, they need to be made more flexible to allow downloading and integration of new services. In this paper some of the main issues and challenges in using object-oriented technologies to design and develop more flexible card payment services are considered.
1998	11th Bled eCommerce Conference	Dynamic Modelling To Assess The Business Value Of Electronic Commerce	George M. Giaglis, Ray J. Paul	Prior to adopting Electronic Commerce (E-Comm), organisations need to assess its real business value and compare it to the costs of the associated investments. The intangible nature of most E-Comm benefits may render the development of a business case very difficult in practice. In this paper, we present a case study of E-Comm investment evaluation. Computer-based models of the business processes to be affected by E-Comm were developed and dynamically simulated to assist in gaining insight on the real benefits and dangers associated with the planned business change. Drawing on the results of the case study, we discuss the potential of Dynamic Process Modelling to support assessment of E-Comm business value.
1998	11th Bled eCommerce Conference	Viewing Business Process Security From Different Perspectives	Gaby Herrmann, Günther Pernul	In electronic commerce security and integrity is a crucial success factor. In this paper we propose to view high level security requirements of business processes from five different perspectives. The paper contains a description of the tasks involved in the different perspectives and outlines the modelling of security requirements by focusing on the example "legal binding of contracts". The example is viewed from all five perspectives. Additionally an architecture for a business process security infrastructure is outlined.
1998	11th Bled eCommerce Conference	EDI Implementation: A Broader Perspective	Caroline Chan, Paula M.C. Swatman	EDI has become a popular area for academic research since the late 1980's. Yet most of the studies which have been undertaken have tended to focus either on the strategic planning and requirements elicitation for EDI, which take place before the system is implemented, or have been concerned with issues such as the integration of EDI into internal applications. In this paper we look at the implementation of EDI in a broader way, considering the implementation process in terms of both a 'change process' as well as technological diffusion and taking into account the factors influencing that process. We suggest that a model based on this view will describe the implementation process in the real world and allow the creation of a more comprehensive picture of the events which take place during the implementation process.

1998	11th Bled eCommerce Conference	Knowledge Domains In Scoping Educational And Support Issues For Internet Commerce	B.J. Garner, Elaine Lawrence	The educational and support requirements for Internet commerce are poorly understood by the business community, leading to individual frustration, loss of business opportunity and disappointing growth of electronic commerce within Australia, particularly within the Small and Medium size Enterprises (SME's). In this paper, we provide an issues analysis and conceptual model for knowledge level evaluation based on the use of Knowledge Domains for scoping the educational challenge. Experimental support for our conclusions was obtained from a series of medium learning experiments in 1997 using the WEB as the instructional medium. The implications of our results for future educational research in distance education are presented, with particular attention to Internet commerce education.
1998	11th Bled eCommerce Conference	Electronic Sales Assistance For Product Configuration	Ulf J. Timm, Martin Rosewitz	Electronic Product Catalogues attract high media attention. You can find them on CD-ROMs as well as on various World Wide Web sites. Anyway, most customers miss Sales Assistance when browsing through these applications. Sometimes, hierarchical catalogue structures or enhanced search functions try to alleviate the problem of finding a wanted standard product. However, these approaches are of no use when products have to be configured. This article describes a well-tried solution of Electronic Sales Assistance for this case in the field of furniture.
1998	11th Bled eCommerce Conference	The Role Of Information Systems Within Efficient Consumer Response (ECR): Towards A Maturity Model Of Engagement	I. Terpsidis, G. Doukidis, V. Zarogianni, K. Manikas, A. Poulymenakou, P. Milliotis	Although Information Systems play an important role within ECR (Efficient Consumer Response), the concept has not been examined yet under an IS research perspective. In this paper we develop an integrated model of maturity for the adoption of ECR practices from an IS perspective. This model is influenced by theories of innovation diffusion in the enterprise. Our study considers the relationship of IS and management practices in retailing from the inter-organizational and the intra-organizational IS dimension. The model is applied in 45 companies involved in ECR initiatives in Greece and results are presented in terms of the sample's maturity in ECR terms in conjunction with its IS performance/ maturity.
1998	11th Bled eCommerce Conference	Quality Of Service In The Electronic Supply Chain: The Role Of The Internet In Marketing Strategy	Lois Burgess, Joan Cooper	One of the few remaining strategies that can set one manufacturing firm apart from the others is customer service. Goods manufacturing firms in many industries, as well as a number of industrial firms now focus their marketing efforts heavily on service in an effort to gain greater advantage in today's highly competitive markets (Zeithaml, 1996). Manufacturing firms have long realised the efficiencies to be gained through the use of IT systems, particularly inter-organisational systems which have been used to integrate the entire supply chain. The development of the Internet and the Web during the 1990's is a 'quantum leap' in the facilitation of business to business trade and many businesses have realised the potential of the Internet as a key EC transport alternative that compliments existing interorganisational systems. The role of the Internet in marketing strategy, as an integral component in the facilitation of EC, will be presented and discussed. The value of the Internet as a means of deriving competitive advantage through the provision of 'excellence' in service quality will also be detailed. This will be demonstrated through the use of two Australian case examples. The examples cited demonstrate how firms in the manufacturing sector have harnessed the Internet by exploiting marketing strategy to enhance the quality of their service offering to customers.



1998	11th Bled eCommerce Conference	Evaluating Interorganisational Systems The Case Of (EDI) In General Practice	A.Abu-Samaha, J.R.G. Wood	This paper presents an evaluation method for IT projects founded on the interpretive paradigm [Burrell and Morgan, 1979] and employing Checkland's (1990) SSM and Mitroff and Linstone's (1993) Stakeholder Analysis. The performance measures identification method proposed in this paper operates in three stages. The first stage is to identify the intra and inter-organisational stakeholders involved in the intervention. The second stage is to determine a Root Definition for each stakeholder, which includes their "World-view", the transformation process and the definition of the criteria for the Efficacy, Efficiency and Effectiveness of each stated transformation process [Wood-Harper et al, 1996]. The final stage is to identify appropriate Measures of Performance related to the criteria identified at the earlier stage. The method is applied to the evaluation of an EDI implementation in the context of primary and secondary health care [NHS Executive, 1995], [NHS Executive (a), 1996] and [NHS Executive (b), 1996]. The investigation encompassed a number of interviews conducted over an extended period of time and which involved a number of general practices in the Southwest of England. EDI is being used in this context to replace the previous paper- based communication of pathology laboratory results. Although, it has proved successful at a technical level, and whilst recognising the importance of the technical perspective, this paper is primarily concerned with investigating the success or failure of such initiative on the organisational and personal perspectives [Mitroff and Linstone, 1993]. In this paper, the authors identify an alternative approach to the Cost/Benefit Analysis technique, which invokes developing a holistic view of EDI including an emphasis on the organisation at the receiving end of the EDI Link.
1998	11th Bled eCommerce Conference	A Taxonomy Of Cost: Benefit Factors In Smart-Card Based Electronic Payments Systems	Stephen R. Elliot	Based largely on its potential as an electronic cash substitute for low-value transactions, the market for smart-cards has been predicted to be \$US9 billion by the year 2000 and \$US1.6 trillion by 2005. Technology adoption theory suggests a critical factor in the take-up of smart-cards will be perceptions of its costs and benefits. Detailed searches of the literature have produced a group of potential cost : benefit factors which have been analysed to identify those applicable to different participants in a smart-card implementation. The resulting list has then been tested in primary research. The outcome is a proposed taxonomy of cost : benefit factors in smart-card based electronic payments systems.
1998	11th Bled eCommerce Conference	The 1997 Virtual Wine Tasting Project: A Case Study Report	Josie Arnold, Russell Dawe, Jan Hastings, Mike Redwood, Kitty Vigo	Data gathered during the evaluation of seven wines by participants in the 1997 Virtual Wine Tasting indicated that there are significant cultural differences between Australia and Slovenia in terms of their understanding of the language used to describe wines in tasting notes and on labels. This paper reports on these differences and raises questions about the implications of these differences for selling products in foreign countries, particularly by small businesses engaged in direct electronic commerce via the internet. It also describes the effectiveness of using teleconferencing software for presenting and evaluating products to potential markets. Research opportunities that developed as a result of the Virtual Wine Tasting project are also described.
1998	11th Bled eCommerce Conference	Infocities: Experiences With Electronic Commerce For City Smes	Jim Strom, Karen Preece, Annie Millar, Denise Eccles	This paper reports on applications that are being trialled in Manchester and other cities to examine the use of electronic commerce in support of business development and commercial activities across European cities. The applications form part of the EU Infocities project to determine the basis for city information services that will drive an integrated set of cross-sectoral developments incorporating culture, education, civic, transport, healthcare and electronic commerce. Manchester is able to draw on its long experience in the development of skills and telematics infrastructure to support citizens, communities, businesses and the overall economic well-being of both the city and the region. The paper reviews evidence of increased ICT usage and application within the NW England drawn from a survey of some 3000 SMEs. Furthermore as part of the electronic commerce evaluation within Infocities, the paper presents a case study of a 3-month pilot study that was set up to create a secure Internet shopping site in Manchester. The site provided a free service to Manchester SMEs allowing them to market products that had a close relationship with the city. Considerable experience was gained from this exercise despite the fact that it failed in the end to generate any significant sales. The paper discusses the reasons for this and identifies the lessons learned.

1998	11th Bled eCommerce Conference	A Survey Research Design To Better Know The Decision-Makers, First Results: Inside & Outside The USA	Henrique Freitas, A. Milton Jenkins, Jean Moscarola, Joo Luiz Becker, Amarolinda C. Zanela, Marie A. Macadar	We present a description of a survey designed to accomplish a cross-cultural quanti-qualitative exploratory study in three countries (Brazil, France, USA), aiming to point out the main managers perceptions regarding the decision-making process. The first results are presented to illustrate some differences, and that we need to pay attention to cultural factors, especially now that we have every enterprise, every community trying to be in touch and doing some business anywhere. In EC, even if all tasks are technically possible in an automatic way, we need to know each other better, in order to facilitate cooperation or negotiation.
1998	11th Bled eCommerce Conference	An E-C Link For Surgical Patients Admission: Technical Architecture On A Shoestring	Hans Lehmann, Daniel Mar, Benson Soong, Terence Wee	The rationale for using a single case study approach is set out and put into context of current case research literature and thinking. The validity of the approach and its implications for being able to generalise from its findings are discussed. The enterprise in the case study is a private hospital in Auckland, New Zealand. Recently, the hospital had begun to build an electronic commerce (EC) presence. The first project was the establishment of a 'homepage' which, apart from fulfilling a direct marketing objective, is designed to become the centrepiece of an electronic commerce medium for dealing with the medical practitioners who use the hospital facilities. The case is the history of the first EC service project, an electronic interface for surgeons to book operating facilities and to automate admission procedures. The process changes and improvements are described, as are the resolution of environmental issues such as security and patient privacy. The architecture of the system, which centres around the basic structure of an Intranet, is outlined. A number of points of general import for interactive surgeon-hospital systems are developed from the case in conclusion. Pointers for further and/or follow-up research are given.
1998	11th Bled eCommerce Conference	A Requirements Analysis For Improving The Participation Of Small And Medium Size Enterprises In Electronic Commerce	Yao-Hua Tan, Hans Konstapel	It is a well-known problem that small and medium size enterprises (SMEs) have difficulty to participate in electronic commerce. In particular, the SME participation in business-to-business electronic commerce is seriously lagging behind compared to the very active participation of large companies. We discuss several barriers that could explain why SMEs have problems to participate in electronic commerce. Examples of such barriers range from lack of trust because of unclear status of electronic trade documents to specific SME problems in back office processing of electronic (EDI) messages. We also present a generic architecture that is specifically dedicated to improve the participation by solving these barriers for SME participation.
1998	11th Bled eCommerce Conference	Electronic Commerce And Small/Medium Enterprises (SMEs) In Australia: An Electronic Data Interchange (EDI) Pilot Study	R.C. Macgregor, D.J. Bunker, P. Waugh	A study carried out by the EDI World Institute in Canada suggested that a variety of benefits could be realised by SMEs if they were to adopt Electronic Commerce approaches and technologies. Several survey-based studies have been carried out on the small business community in Australia. The data gathered from these studies suggests that many of the premises upon which Electronic Commerce is both designed and disseminated to SMEs are based on incorrect assumptions. This paper examines the reasons behind, and approaches used by SMEs in their adoption of information technology. These reasons have been highlighted in previous studies by our research team. The results of a small business EDI pilot study will then be discussed in the context of general IT use within SMEs. It will be argued that for EDI to be viable in the SME environment, there needs to be a far greater understanding of this environment and the mechanisms by which a SME adopts and utilises computer technologies and techniques.
1998	11th Bled eCommerce Conference	Small Business Internet Commerce Experiences: A Longitudinal Study	Simpson Poon, Paula M. C. Swatman	This paper examines what a group of small Australian firms can gain from Small Business Internet Commerce (SBIC) activities based on the findings from a longitudinal study over a twenty-month period. Essentially, we found that small firms online believed the Internet is important in terms of competitiveness, although some of the early expectations about SBIC's ability to generate instant competitive advantage had started to wane. The most useful attributes of the Internet were information gathering and time-savings, while results on advertising and sales were less encouraging. Internet marketing effectiveness was found to be industry-sector- dependent.
1998	11th Bled eCommerce Conference	EDI Security Risks - A Qualitative Study Undertaken In Australia	Quirk Pauline Rathasingham, Tobias Ruighaver, Mary Sandow-Quick	Electronic Commerce presents many opportunities for public and private sectors to capitalize on technologies such as Electronic-Data-Interchange. The paper validates and extends the results of a previous survey and presents the findings of seven case studies using EDI systems undertaken last year. The organizations studied represented a cross-section of the industry groups, two from the Automotive and Telecommunication industries, and one from each of the Banking, Clothing and Petroleum industries. Keywords: Electronic Data Interchange (EDI), security risks, controls, authentication, confidentiality, integrity, availability, access control, repudiation.

1998	11th Bled eCommerce Conference	Would You Buy An Ice-Cream Cone Over The Internet	David Whiteley	Internet Commerce is been promoted as the essential way of doing business. However, we have been here before. Electronic Data Interchange was to be the way that all inter-organisational transactions were to be executed and Electronic Markets were to expand their horizons and create efficient market structures. It is the contention of this paper that, like its predecessors in the field of Electronic Commerce, Internet Commerce will have a significant role in certain markets and for different population groups but it is not the 'silver bullet' that meets all trading requirements or provides a competitive edge for all businesses.
1998	11th Bled eCommerce Conference	Autonomous Learning Agents For Consumer - Oriented Electronic Commerce	Mansoor A. Turaif, Robert M. O'Keefe	This paper demonstrates the benefits of adopting a Multi-Agent System (MAS) paradigm to automate the tasks of consumer decision-making processes as perceived for electronic commerce. A simple conventional model of consumer decision making that reflects the cognitive behaviour of the consumer is explained. Then, a framework for automating the decision making process is presented based on the MAS paradigm. The benefits of this approach, the barriers, techniques and design issues are investigated. The paper also reviews relevant research that has been done in negotiation to exploit ideas to build intelligent negotiation agents.
1998	11th Bled eCommerce Conference	EDI Services As Innovation	Ettore Bolisani, Ian Miles, Mark Boden	The development of Electronic Commerce underpins innovative activity across a range of areas. The study of this activity may provide a number of interesting insights into the innovation process, most notably the relationship between innovation and services. Services are not just the passive recipients of innovations developed elsewhere, as often thought: they can play active roles in use, transfer and development of technological innovations. This study draws on empirical evidence generated by a recent survey of the state-of-the-art of innovation in EDI, and a series of case-studies of EDI users and services providers. It examines the interaction between EDI users and service companies, and particularly the process of knowledge generation and transfer in EDI implementation. This is a matter of considerable relevance for both the theory and practice of innovation.
1998	11th Bled eCommerce Conference	A Framework For Using Information Technology Within The Grocery Retail Sector	Jyoti Choudrie, Vlatka Hlupic, Bob O'Keefe	As the popularity of the Internet increases, a dynamic development of electronic commerce, in particular electronic retail is occurring. Due to the wide and varied Information Infrastructure the Internet offers, the potential to allow an interconnected marketplace has been increased. Additionally, roles and intermediaries that were not so evident within the physical marketplace are being emphasised in the new market. This paper presents an investigation of the evolution of IT within the grocery retail sector, and examples based upon a major grocery retailer's experiences with the Internet. Value Chain analysis has been used to analyse the transformations undergone by the grocery retail sector. Early results indicate that many retailers are satisfied with the Internet and have adopted this development, as a consequence of the positive results achieved. Other retailers are also expected to follow suit.
1998	11th Bled eCommerce Conference	Interorganisational Data Integration: Theory And Practice	Bas H.P.J. Vermeer, Ton F.L. Veth	Lack of data integration is becoming the major bottleneck for interorganisational networks driven by Information and Communication Technologies. Current data integration techniques, such as more data administration staff, the use of EDI article messages or a central sectorwide database, do not solve this problem. However, it is not clear why. In this paper a new interorganisational data integration model is introduced, which will aid the evaluation of interorganisational data integration techniques and perhaps identify successful techniques after future research.
1998	11th Bled eCommerce Conference	The Integration Of Business Information System Packages To The Organisations	R. Govindaraju, D.A. Wassenaar	Large investments have been made by firms to obtain benefits from information system by implementing standard business information system (BIS) packages. However, many of these implementations should be categorised as failures. The objective of this research is to get a more comprehensive understanding of how BIS package implementation in organisations can be managed by studying the implementation process and identifying the important success and fail factors, from organisational change point of view. A review of literatures relate with the organisational change aspects of information system (IS) implementation and previous research in IS implementation have been done, and based on this literatures review, a conceptual research model was developed. This research is continued by doing a small case study in an on-going implementation process in a medium size company in The Netherlands, in order to get ideas on how to improve the conceptual model. Results of literatures review and a first case study are discussed in this paper.

1998	11th Bled eCommerce Conference	Electronic Business And Financial Logistics As Integrated Reengineering Of Intra- And Inter-Organisational Systems	Arjen Wassenaar, Dirk Swagerman	This paper presents current research in progress about electronic business and financial logistics as an integrated re-engineering challenge. The objective of this research programme is a better understanding of electronic business considered as integrated reengineering of intra- and inter-organisational organisation and information systems. The first chapter provides an overview of the developments in electronic business and financial logistics in the last 30 years. Fundamentally, the role of information and communication technology (ICT) in business has changed into a strategic one. Chapter 2 presents an overview of business challenges in the nineties and the opportunities (enabling) information and communication technology (ICT) offers to respond better to the challenges identified. In essence, new emerging ICT capabilities have to be integrated into the commercial, physical logistic and financial logistic processes within and between companies. Therefore, an integrated approach to the joint restructuring of intra- and inter-organisational systems is needed. Chapter 3 presents a basic concept for an approach to the integrated restructuring of these systems enabled by emergent ICT capabilities. Finally, chapter 4 presents a case study illustrating the basic redesign choices that have to be made in an integrated approach of re-engineering.
1998	11th Bled eCommerce Conference	Electronic Commerce And Cyber-Entrepreneurship Potential And Problems Of European Start-Up Firms In Ict	Willem Hulsink, Herman Van Bolhuis	N/A
1998	11th Bled eCommerce Conference	Opportunities And Risks Of Electronic Publishing: The Case Of 'Rentrop Publishing	Claudia Loebbecke, Philipp Butzbach	This paper analyzes the opportunities and risks of launching Electronic Publishing in the case of the medium-sized German publisher 'Rentrop Publishing'. After a short look at the company's business and an introduction to the corporate philosophy, products and core competencies, the question of entering Electronic Publishing is enlightened from three different angles - timing of entry, value-chain activities to be included, and product design. The paper ends with first conclusions concerning the opportunities and risks and some 'Lessons Learnt' of entering into this market.
1998	11th Bled eCommerce Conference	Conceptual Modeling Of A Virtual Electronic Bazaar	Roman Brandtweiner, Arno Scharl	During the evolution of mankind markets have developed as independent and highly functional institutions. Our intention is to identify the major structures, processes and players of real markets on an abstract scale and to transform these elements into virtual objects for the purpose of designing a conceptual model of an electronic market. We concentrate on a particular form of markets: the oriental bazaar. Being the traditional and dominant market type of oriental cities, the main characteristic of an oriental bazaar is the negotiation system which determines the individual prices of products and services.
1998	11th Bled eCommerce Conference	The Impact Of The Web On Auctions: Some Empirical Evidence And Theoretical Considerations	Stefan Klein, Robert M. O'Keefe	Since the extensive diffusion of the Web, there has been a proliferation of on-line auctions. This paper considers the impact that the Web is having upon auctions: their viability, operation and diffusion. This is done through a consideration of the impact of the Web on the various players in an auction, and a classification of types of auctions. The hypothesized impacts are compared with a brief case of an established auction firm, their move to the Web, and the market domain in which they operate. This is then used contribute to the electronic markets debate and develop some hypotheses about the way in with Web-based markets that use auction mechanisms may evolve. We identify trust and quality as key attributes of auctions that may result in a "move to the middle" rather than the establishment of purer market mechanisms. We also note the growth of new cybermediaries and a possible extension of the supply chain.
1998	11th Bled eCommerce Conference	Concept And Realization Of An Internet-Based Infobroker For Hardware Components	Ralph Horstmann, Ulf J. Timm, Peter Mertens	Many companies use the Internet respectively the World Wide Web (WWW) only as a new means of offering their products. They do not make any efforts to improve the relationship with their customers. This approach seems to be doomed to fail in the long run as it does not take into account the enormous potential of the WWW. Nowadays, most clients expect not only to get products but also problem solutions from their suppliers. The firms want to serve their clients for longer periods of time and the clients are interested in being 'looked after'. Therefore, a prototype of an Infobroker in the field of business-to-consumer relations is presented. It uses special services that allow individualized contacts with each customer. These contacts are carried out in the form of personalized information deliveries. Intelligent solutions also act as recommender systems tracing how the clients interact with the system and using this information for future contacts. In our case the goods sold are hardware components.

1998	11th Bled eCommerce Conference	Using The Public Sector As A Locomotive For Electronic Commerce: The Case Of Denmark	Kim Viborg Andersen, Niels Bjorn-Andersen, Jonathan Wareham	The public sector's use of electronic commerce is considered a primary driver in orienting the Danish economy towards digital commerce in the next century. This paper aims at understanding three broad issues: Why the government is trying to stimulate the diffusion of EDI; how state initiatives (normative, economic, pedagogical and organizational) function to stimulate EDI use; and the prospects of governmental actions within the area of EDI in the coming years. Relying on an ongoing (1998) first hand study of EDI (based on VANS, direct proprietary IOS connections, and exchange based on TCP/IP), we access the diffusion in the public sector. Our study suggest that the governmental initiatives have been successful within the areas vital to the public services and instruments, but lagging in supporting the private sector's need for EDI and lagging in the public sector's own management.
1998	11th Bled eCommerce Conference	Electronic Commerce In The Public Sector: Towards A Framework For Consideration	M. Themistocleous, A. Poulymenakou, V. Laopodis	The introduction of the Electronic Commerce technology in the public sector is viewed as a means of expanding the functionality and efficiency of country's public administration, leading to a higher standard of leaving for its citizens. It is inevitable however, that the application of this technology will necessitate organisational and operational change in the wider user base of such EC systems. Due to the special character of the public sector and the changes that the EC applications of the public sector introduce, is not always possible to follow the existing software engineering methodology for the development of EC government applications. It is for this reason that the need for a structured methodology for the application of electronic commerce applications in the public sector is vital in order to provide support for the adoption of new systems in a smooth and beneficial way. The scope of this work is precisely to suggest a methodology (MECAPS) specifically tailored for such applications.
1998	11th Bled eCommerce Conference	Global Paradigms For Taxing Internet Commerce	Elaine Lawrence, Brian Garner	The Australian Tax Office and other national tax offices are urgently seeking a global solution to the problem of taxing electronic commerce transactions. This paper outlines some of the proposals put forward by Australia, the United States of America, Germany and Belgium, examines the work being done internationally and points out the problems being addressed by the various models. Finally the paper outlines what conclusions we can draw from these paradigms and points the way ahead for further research on this fast breaking method of doing business. Ongoing research will address the need for Income Risk Assessments for multiple business models.
1998	11th Bled eCommerce Conference	The Deakin Electronic Trading Community: An Interactive Approach To Teaching Electronic Commerce	Philip Joyce	Electronic Commerce is now seen as the future direction of commerce. Organisations are now developing and implementing a wide range electronic commerce systems in an effort to not only remain competitive but develop new valued added products and markets. However, before organisations will be able to harness the potential of electronic commerce systems suitably trained people will be required. The Deakin Electronic Trading Community has been developed to provide a virtual electronic teaching environment to demonstrate the principles of electronic commerce to the student.
1998	11th Bled eCommerce Conference	Electronic Commerce Enabled Education: Students Perceptions Of Web-Based Courseware Tools	Christian Bauer, Bernard Glasson	Courseware tools become increasingly important for educational institutions offering Internet-based, on-line courses. On-line education is being heralded by some as the procurer of a new Electronic Commerce enabled industry. Whether this potential will be realised depends to a large extent on the perceptions of students studying on-line. In this paper we will present findings based on the feedback of 100 students participating in a pilot project. The students were divided into groups, taking the same on-line course on two different implementations (Learning Spaces on Lotus Notes and WebCT). The analysis of students perceptions employs descriptive statistics, Spearman's correlation and time series analysis. The feedback of the students shows strengths and weaknesses of the respective courseware tool. It also provides strong indication that undergraduate university students at worst have few reservations about learning through Electronic Commerce enabled courses and at best prefer this style of learning.
1998	11th Bled eCommerce Conference	The Trece Laboratory: A Successful Application In Industry	Craig M. Parker	The TRECS (Teaching Realistic Electronic Commerce Solutions) Laboratory is a practically-based education approach which uses a business simulation to teach small and medium enterprise (SME) owner/managers about how EDI can be applied in their organisations. This paper analyses the findings resulting from its use with business participants and discusses feedback concerning the adequacy of the EDI issues/topics covered; the design and operation of the EDI business simulation; and the effectiveness of the laboratory. The paper then outlines the alterations to TRECS which are being made so that TRECS will be suitable for inclusion in EAN Australia's EDI courses which will be offered to its membership.

1998	11th Bled eCommerce Conference	Towards A Business Systems Engineering Methodology For E-Commerce	Marijn Janssen	E-commerce requires and can be used to enable new kinds of coordinating mechanisms in a distribution network. The introduction of new coordinating mechanisms in a distribution network requires a business system engineering approach, due to the complexity of distribution networks, unclear implications and the different goals and interests of the organizations in a distribution network. The purpose of this research paper is to identify starting points for a business engineering approach for e-commerce. The elements of a business system engineering methodology are presented in the last section of the paper.
1998	11th Bled eCommerce Conference	A Comprehensive Framework For The Acquisition And Deployment Of Inter-Organisational Systems	Bruce W. Hunt, Paul A. Swatman	Current Information Systems development methodologies are targeted at the development of systems that are designed to fulfill the information management functions of an organisation, with little regard to connecting these systems to those of trading partners. In attempting to use these models for the implementation of Inter-Organisational Systems (IOS), a number of problems are likely to be encountered. The proposed track of this research, presented in this outline, is to develop a framework that supports the planning, implementation and review process of an Information System (IS) operating in an IOS environment. The effective and efficient acquisition of an IOS requires a framework that takes into account the special needs of systems that require internal and external integration. This paper presents the business case for the development of such a framework which will be the result of a future track of research
1998	11th Bled eCommerce Conference	Quality Applications For Web-Enabled Electronic Commerce	Jennie M. Carroll, Bruce W. Hunt, Paul A. Swatman	This paper examines the application of modern quality theories to electronic commerce - in particular, Web-enabled electronic commerce. It discusses the current emphasis on quality within modern organisations and explores how such concepts can assist in developing quality applications for electronic commerce using the Web. The discussion is illustrated with a case of the development of an Information Broker, that is used to locate the sources of products and services through the Web. Particular focus is placed on the requirements engineering and implementation phases of the systems development. Conclusions drawn from analysis of the case include the need for a new skill set for requirements engineers as well as awareness of the pressures arising from limited resources (time, lack of experienced people and immature business skills).
1999	12th Bled eCommerce Conference	Marketing in www context - A case study of a pilot web-based supermarket.	Helena Ahola	This paper explores marketing, buying and selling daily consumer goods in one web-based supermarket. A case research strategy and action research approach are used. The empirical evidence is obtained using multiple sources, e.g. pilot customers, a retailer, and executives of the wholesales company. The unit of analysis is value creation in exchange relationships, which is, in fact, marketing. Mainly qualitative methods of analysis are used. The results demonstrate the values created and development tasks. Although the web's benefits for marketing have been emphasized, the case analysis shows difficulties in creating values for all parties. This is particularly the case in maintaining customer relationships when the web retailing format is being developed and customers stick to their shopping habits, and in a situation where many other competitive options are available. In terms of customer relationships the pilot did not fully meet the expectations of the retailer, but the intangible benefits, such as image and the learning experience in itself, were valuable. The results also show that satisfaction with the quality of goods and service is not sufficient to patronize a web store. Further research is suggested to find out the customer value in web retailing context.
1999	12th Bled eCommerce Conference	Key Success Factors in Designing and Implementing Business Networking Systems	Rainer Alt Elgar Fleisch	Designing relationships among business units is of growing competitive relevance. However, gaining critical participation and aligning business and technical issues are major difficulties these Business Networking Systems (BNS) have to face. On the basis of three types of BNS and the specifics of inter-business relationships, this article describes the implementation of three different BNS. The major steps are analyzed and two techniques which strongly determined the projects' success are described. We conclude that design methodologies for BNS-projects should consider both, partner profiling and win-win situations, as integral elements which foster adoption and business orientation.
1999	12th Bled eCommerce Conference	Electronic Markets Development: Using Marketing Research to Determine User Requirements	Christian Bauer, Sandy Chong	Despite the apparent differences between intra- and inter-organisational information systems and electronic markets, the available methods for user requirements analysis have not extended and updated adequately. Considering the voluntary user participation and the lack of efficient control mechanisms and modern communication architectures into account, marketing research techniques are proposed as complementary and/or substitutive methods for determining user requirements in electronic markets. A review and an assessment of marketing research techniques illustrate their suitability for user requirements analysis of electronic markets development. Marketing research is identified in this paper as a promising method to improve the design of electronic markets.

1999	12th Bled eCommerce Conference	Decision Analysis - A Critical Enabler for Multi-attribute Auctions	Martin Bichler	Procurement is one of the most important business functions. Competitive bidding and auction mechanisms are an interesting means for purchasers to support negotiations. However, one of the greatest deficiencies of current auction implementations for pro-curement is that they only automate negotiations on a single attribute (e.g. price) of a good or service. This paper introduces multi-attribute auctions. The buyer defines preferences in form of a utility function. Then suppliers try to submit bids that best satisfy the buyers preferences. The paper starts with the description of major auction mechanisms and provides a classification of negotiation support tools used on the Internet. The crucial step in this procedure is the definition of buyers' preferences. Therefore, in this paper we focus on ways to elicit the buyers' utility function. We survey several major decision analysis techniques and propose a suitable technique, for the use in multi-attribute auctions.
1999	12th Bled eCommerce Conference	Mapping Italian Electronic Commerce Sites	Ettore Bolisani and Lucia Tassoni	The paper presents the preliminary results of the analysis of more than 100 websites of Italian firms and service providers involved in business-to-consumer Electronic Commerce through the Internet. The aim is to draw a map of the different purposes and characteristics of webpages implemented by firms, and to analyse the various classes of services and providers. The research shows that only a small part of firms are actively involved in online sales, while the majority is interested in advertising or Internet catalogues. Furthermore, the intermediation of various categories of services and providers proves to be critical in the implementation of applications.
1999	12th Bled eCommerce Conference	A Model for Classification of Business Adoption of Internet Commerce	Lois Burgess, Joan Cooper	Recent research contends that business web site development typically begins simply and evolves over time with the addition of features as the site takes on more functionality and complexity [23]. Past empirical research of commercial web sites support this notion, contending that firms imitate what others do on the Web, partially in a desire to keep pace with competitors or to gain an advantage over competitors in one's own industry by replicating what firms have done in other industries [23]. With this lack of evidence and academic enquiry in regard to the adoption/evolutionary process followed by firms in the development of commercial web sites a Model of Internet Commerce Adoption (MICA) was designed.
1999	12th Bled eCommerce Conference	Issues in the implementation of electronic commerce in the human services: reflections on the Victorian initiatives	Tanya Castleman, Paul Swatman, Craig Parker	Electronic commerce technologies have many potential applications in the health and human services sector. Implementation of these techniques is growing and assisting the administration and delivery of these services. There are a number of aspects of eCommerce in human services delivery which distinguish it from commercial transactions. This paper discusses factors affecting the development of eCommerce in the Victorian (Australian) human services sector. Some of these factors are related to the organisational context in which these services are delivered, some are related to the characteristics of the users and their carers and some derive from the symbolic meanings attached to the technologies themselves. To reap the benefits of eCommerce for health and human services, it is important that we understand the often complicated social and organisational context in which it is to be implemented.
1999	12th Bled eCommerce Conference	CONSIDERATIONS FOR U.K. FOOTBALL CLUBS INTENDING TO USE THE INTERNET AS A MARKETING TOOL	Simon Chadwick, Alan Tapp and John Beech	Literature findings suggest a powerful role for web sites in football club marketing. The authors used this as a springboard for an exploratory study which combined qualitative interviews with empirical observations of football web sites. Strong links were discovered between clubs' marketing orientation, departmental structure and subsequent web site management. The size of the club was also found to be important, but more in relation to a lack of marketing presence than to economic factors. Club motives for web site development reflected the growing commercial development of football in the UK, with some clubs concentrating on ticketing and merchandising. Others concentrated on adding value to supporter services with devices such as daily news items. Relatively few clubs were gathering data on their supporters. These findings reflect differing awareness and attitudes of club managers towards relationship marketing with their supporters
1999	12th Bled eCommerce Conference	Network Analysis Applied to Freight Transport Communications	D.Čišić, B.Kesić, D.Zec	The business of freight transportation is undergoing a technological revolution at it moves toward the 21st century. New technologies are being developed and adopted in each mode of freight transportation. The one technology that affects all modes is information technology. Information technology related to the coordination of logistics and supply chain management, has the capability of affecting all the modes in a similar way. This technology in the form of electronic data interchange has begun to automate, and reduce the costs of, paper flow required to move goods from shippers, through carriers and transfer points, to consignees. Surveys of the freight transportation industry indicate that the adoption of EDI has not been nearly universal in any dimension.

1999	12th Bled eCommerce Conference	The Willingness of Net-Consumers to Pay: A Lack-of-Progress Report	Roger Clarke	Consumer Internet commerce won't work unless participants pay for what they buy. But there has been a marked reluctance among net-users to actually part with their money. This document discusses the origins of netizens' apparent unwillingness to pay; describes some of the attempts that have been made to winkle them out; argues that marketers have still got it seriously wrong; and proposes ways in which progress can be made. The essence of the argument is that marketers must learn that the world has changed, that significantly different approaches are needed, and that these must be grounded in a deep appreciation of Internet culture.
1999	12th Bled eCommerce Conference	Role of IT, Trust and Networks in Communities: The Case of Prato	Andrea Ganzaroli, Kuldeep Kumar	In this paper we present a model to interpret the creation of IT-based trust within communities. We suggest that the role of IT in supporting trust can not be confined to the simple reduction of information asymmetry in the market. Structuring a process of learning based on the interaction between tacit and explicit components of knowledge represents an equally important factor in order to institutionalize the new trust base in the community. Our model is used to interpret the failure of SPRINTEL, an inter-organizational information system for the industrial district of Prato. The case study confirms that the lack of interaction between tacit and explicit knowledge is the major motivation for the failure of the project. Furthermore, it also confirms that the failure of SPRINTEL has favored the creation of new internal competence and a managerial culture that is supporting the gradual conversion of trust in the community.
1999	12th Bled eCommerce Conference	Disintermediation, Reintermediation, or Cybermediation? The Future of Intermediaries in Electronic Marketplaces	George M. Giaglis <sup>1</sup> , Stefan Klein <sup>2</sup> and Robert M. O'Keefe <sup>1</sup>	Early researchers seemed to agree on the prediction that decreased transaction costs in electronic market-places would lead to the reduction, or even extinction, of traditional intermediaries from electronic value chains. Despite some validity in these claims, a careful examination of the way that electronic commerce restructures traditional market functions reveals three equally plausible scenarios for the future. Traditional intermediaries will either be driven out of the market (disintermediation) or be forced to differentiate and re-emerge in the electronic marketplace (reintermediation), while wholly new markets for intermediaries will also be created (cybermediation). In this paper, we use a model of market functioning to establish areas where each of these three scenarios are expected to dominate.
1999	12th Bled eCommerce Conference	Multi-Vendor Electronic Catalogs to Support Procurement: Current Practice and Future Directions	Mark Ginsburg, Judith Gebauer, Arie Segev	Multi-vendor electronic catalogs (E-catalogs) are an increasingly important component of Internet and Intranet-based procurement solutions as they provide key support for the information-gathering procurement stage. We provide a framework to evaluate three multi-vendor E-catalog models: the "Do-It-Yourself" model, where the buying firm constructs its own E-catalog, the Third-Party E-catalog Integrator model, and the Real-Time Knowledge Discovery model, where buying firms use advanced software techniques such as agents to construct E-catalogs dynamically. We discuss how these approaches might evolve and the difficulties firms may face as they transition between states. Finally, we point out that the addition of coordination pathways can extend each of the procurement models and briefly discuss the strategic implications of these extensions.
1999	12th Bled eCommerce Conference	ENTREPRENEURIAL OPPORTUNITIES CREATED BY ELECTRONIC GROCERY SHOPPING	Jukka Heikkilä, Jukka Kallio, Timo Saarinen, Heli Salmi, Virpi Kristiina Tuunainen	Current trading of daily consumer goods, groceries, is based on large chain masters as co-ordinators and extensive use of small companies as subcontractors, stores as customer front-ends and self-service as means for picking-up and home delivery of the goods. Our research aims at sketching what will be their role in the age of Internet storefronts and seamlessly interlinked information systems. We use task analysis to reveal the areas of opportunities created for entrepreneurs by changing industry operations and structure. The analysis is based on literature on entrepreneurs, explorative survey on EGSs (Electronic Grocery Shops) around the world on the Internet, and on the experiences of the first Finnish EGSs. The analysis implies that the current subcontracting entrepreneurs will need to develop new skills in the evolving electronic market place. On the other hand, this provides new opportunities for both high-tech SMEs (small and medium sized organisations) in the ICT (information and communications technology) industry in developing and maintaining storefronts, and analysing customer information; and for subcontractors in the physical activities such as picking up, home deliveries and recycling.
1999	12th Bled eCommerce Conference	Internetbased EDIFACT-trade documents for Danish SMEs: An analysis of the pre-implementation phase	Helle Z. Henriksen, Kim V. Andersen	The Danish Trade Document Project (TDP) has during 1998 developed a Internet-based EDIFACT-software for SMEs organized in the Confederation of Danish Industries and the Danish Chamber of Commerce. The development of Internet-EDI software is outsourced to an independent, small contractor. In the TDP workgroups formed there has been a focus on developing the software rather than looking at the organizational changes that could be expected from the implementation of EDI in an organization. The pre-implementation process is characterized as a off-the-shelf process, where the organizational roles are or might be refined through the process. The primary motivation for the project has been strategic benefits.



1999	12th Bled eCommerce Conference	Towards a Generic Model of Trust for Electronic Commerce	Yao-Hua Tan and Walter Thoen	In this paper we present a generic model of trust for electronic commerce. The basic components of the model are party trust and control trust. We argue that an agent's trust in a transaction with another party is a combination of the trust in the other party and the trust in the control mechanisms for the successful performance of the transaction. The generic trust model can be used for the design of trust related value-added services in electronic commerce. To illustrate this design use of the model we compare in this paper two activities in electronic commerce that require trust, namely electronic payment and cross-border electronic trade. We show with the model that these two activities actually require two different types of trust, and that complete different services are needed to create these different types of trust.
1999	12th Bled eCommerce Conference	Modeling Inter-Organizational Systems with UML	Christian Huemer	In 1998 CEFACT decided to use modeling in the development process of EDI standards. On the basis of a careful analysis of various modeling techniques the Techniques and Methodologies Working Group (TMWG) decided that the Unified Modeling Language (UML) is best suited for this purpose. The concepts of UML are appropriate to introduce modeling into the current UN/EDIFACT standard development process and also into a future process that may take advantage of new technology such as Object Oriented EDI (OO-edi). UML is called a modeling language, which uses a mainly graphical notation to express designs. It is not a method. Therefore, a process is needed to advise which steps to take in doing a design. In this paper we present a case study on modeling inter-organizational trade procedures based on an UML methodology. The design process utilizes the following UML notations: use case diagrams, class diagrams, activity diagrams and sequence diagrams. The methodology is introduced by means of the international trade transaction model.
1999	12th Bled eCommerce Conference	Teaching Electronic Commerce: The Deakin Electronic Trading Community	Philip Joyce	The Deakin Electronic Trading Community has been developed to increase the student's knowledge in the area of Electronic Commerce by providing a tailored educational electronic environment. This paper examines the underlying theory, structure and implementation of the Deakin Electronic Trading Community.
1999	12th Bled eCommerce Conference	POTENTIALS OF ELECTRONIC COMMERCE IN MALAYSIA	Mahfuzah Kamsah, A.T. Wood-Harper	Electronic commerce (E-commerce) is an important global phenomenon with the potential to revolutionize the way the world will progress socially and economically in the future. Malaysia, following the developed nations that have adopted E-commerce, is also developing and sustaining national initiatives to participate meaningfully in the global digital economy. This paper gives an overview of these initiatives which includes the recently proposed National Electronic Commerce Framework. Also, the paper discusses issues and challenges faced by Malaysia as a developing country in implementing E-commerce.
1999	12th Bled eCommerce Conference	Towards a Methodology for Analysis and Design of Messages for Communicating Agents	Steven O. Kimbrough,	This paper presents a diagrammatic methodology for representing messages used by agents to communicate. The method is an incremental extension of UML (unified modeling language). At least for many messages, the methodology developed in this paper is no more complex than UML or any other standard approach to systems analysis and design. For this reason, it might be hoped that the methodology could be used-and tested empirically and refined-by the large community of those interested both in systems analysis and in agent communications and electronic commerce. Moreover, the methodology is firmly based on a formal semantic theory of agent communication. The paper briefly discusses the connection between the formal semantic theory and the diagrammatic methodology. Users can be expected to exploit the diagrams without having a detailed knowledge of the underlying theory. File: bled-1999-flbc-sysanal-final.doc. Version: 19990426.
1999	12th Bled eCommerce Conference	Design Issues for Development of Interactive Multimedia: Electronic Commerce & Business Simulation Application	Johanna Klassen, Derrick Stone, Doug Vogel	We are now in a world characterized by a plurality of paradigm shifts, a world seriously questioning all modes of behavior, practice and knowledge, or so it seems. It remains distressing that business students lack the basic understanding of how organizations function and the dynamics of business decisions, but it is also not surprising given the rate of change of business paradigms coupled with the lack of student business experience. The challenge is how to provide business education in this dynamic environment. In this paper we describe a multi-media business simulation designed to assist in electronic commerce analyst development. The objective of this multi-media business education application is to develop scenarios and tasks that emphasize experiential learning in teaching business skills and methodologies. A multi-media approach is used to extend traditional simulation to encompass a wider variety of verbal and visual interactions. Students seeking to become junior analysts experience and develop appropriate behavior through direct interaction with the simulation.

1999	12th Bled eCommerce Conference	A Strategy for Web Development in Electronic Trading: A Case Study	Dasha Klyachko and Steve Smithson	New electronic commerce technologies, often piloted by start-up companies, represent an opportunity and a threat to existing organisations. This paper discusses a case study of electronic stock trading and describes how an existing organisation was able to grasp the opportunity offered by web technology to develop a web trading system. The paper focuses on the strategy adopted to reduce the complexity inherent in the existing organisational and systems environment and hence facilitate the creative and productive development effort required. The paper offers a stage model of the development of the system that could be generalised to other electronic commerce contexts.
1999	12th Bled eCommerce Conference	Management of Customer Relationship in Business Media: Motivation for a New Approach	Veith Koerner, Hans-Dieter Zimmermann	Today it is a major issue for the companies to focus on customer needs and their satisfaction. For the future, this focus is getting even more important due to different developments in the emerging Business Media. The paper outlines - based on general trends in customer service and the foundations of the digital economy - the necessity of new concepts for the management of customer relationship. A new perspective and a definition of the Management of Customer Relationship in Business Media (MCR-BM) will be presented. In order to create an MCR-BM application strategy we look at some traditional concepts of Customer Relationship Management and how far they can be transformed in the new concept.
1999	12th Bled eCommerce Conference	EC Service Index	Sanni Kuusela, Cary Maisala, Lauri Saarinen, Markku Tinnilä	Different kinds of business services are being offered through the Internet in an ever-increasing pace. The most advanced sites are widely acclaimed and discussed. However, it is difficult to get reliable information of the dispersion of different types of services and the stage of development on aggregate level. The Service Index (SI) proposed in this paper serves as a tool to provide information about the development stage and quantity of services available in the Internet. The SI provides information on the amount of commercial services available on Web, what kind of activities are being offered, how they are customized and how these activities are managed and operated, e.g. the level of integration to the firms' operational systems. The SI is designed to provide comparable results on firm, industry and country level. It is intended to be a generic and non-specific measurement method of Electronic Commerce services facilitating also international comparisons. Longitudinal data gathering provides the possibility for time series analysis.
1999	12th Bled eCommerce Conference	ELECTRONIC COMMERCE CHANGE: ALIGNMENT WITH TRADITIONAL MODELS	Kristy L. Lawrence, Leonie M. Thomas	This paper reports on one component of a large doctoral study looking at electronic commerce in industry sectors. The subject of this paper is an attempt to answer the question of whether organizational changes, brought about as a consequence of electronic commerce implementations, demonstrate similar characteristics to those put forth in traditional models of change. In this paper two well established approaches to change, the Planned and Emergent models, are used as a basis to test this theory.
1999	12th Bled eCommerce Conference	Bureaucracy Made Easy: eProcedures for Global Trade	Ronald M. Lee	Bureaucracy ('red tape') is a problem of friction in organizational processes of all kinds. It also is a severe problem in transactions among organizations, especially at the level of international trade, where it reaches trillion dollar proportions. This paper proposes means to reduce bureaucracy, especially at the inter-organizational and global levels. Representation, architecture and a prototyping system, called InterProcs, are presented.
1999	12th Bled eCommerce Conference	Electronic Publishing: Investigating a New Reference Frontier	Claudia Loebbecke	Online publishing has become a means of publication in its own right, with its own strengths and weaknesses, and its own necessary logic. Some content, such as reference information, seems to be ideal for online publication, however, companies are still seeking for promising and sustainable business models. Based on the case of a traditional medium-sized reference publisher, whose business model heavily relies on advertising-based income, issues regarding the move towards the business of electronically offering reference information are discussed. The paper concludes with an outlook to the 'new reference frontier'.
1999	12th Bled eCommerce Conference	Mobile Agents on Electronic Markets Opportunities, Risks and Agent Protection	Torsten Mandry, Günther Pernul, Alexander W. Röhm	In this paper we characterize the different tasks mobile agents can perform for their users on electronic markets. These tasks imply various risks that have to be addressed by protection mechanisms, not only to protect the market servers from malicious agents, but also to prevent the mobile agents from malicious hosts. To achieve the latter is quite difficult, because in order to execute the agent, the host has to read the agent's code and data. We perform a study of different approaches to protect mobile agents, take a detailed look at their pros and cons and examine possible application fields on electronic markets for each of the approaches. Finally, we use one of the presented approaches and develop an architecture for an electronic market in which security and anonymity of market participants using mobile agents is of major concern.

1999	12th Bled eCommerce Conference	Web-TRECS: The Design and Use of an E-commerce Business Simulation	Craig M. Parker, Paula M.C. Swatman	A challenge for eCommerce educators is the development of teaching tools and environments which provide tertiary students and business people with practically-based opportunities for learning about the business potential of eCommerce. Business simulation approaches to eCommerce education are a particularly effective way in which to provide students with these pedagogic opportunities [see 10]. What is less certain, however, is how Web-based business simulations can be developed and used to teach eCommerce. This paper describes the way in which we developed such a Web-based eCommerce business simulation called Web-TRECS. The paper discusses some innovative approaches to the development of this teaching tool, including components of the Web-TRECS application which allow educators to design their own manufacturing supply chains for use in Web-TRECS and which dynamically generates online participant manuals and instructions based on these alternative supply chain designs. The paper then outlines the types of eCommerce teaching objectives which can be addressed using Web-TRECS based on our initial experiences with this tool and our extensive experience with non-Web versions of TRECS.
1999	12th Bled eCommerce Conference	Opportunities and Threats of Electronic Commerce over the Internet in Slovenia's Organizations	Andreja Pucihar, Jože Gričar and Jože Jesenko	This paper presents the objectives, importance, methodology and results of research into the opportunities and threats of electronic commerce in Slovenia's organizations. For the research, a questionnaire was used to gather opinions about: the current status of electronic commerce in Slovenia's organizations, opportunities for the future use of electronic commerce, the benefits of and barriers to electronic commerce, and the drivers of electronic commerce that might spread its use and acceptance in Slovenia. The joint mail/web surveying was conducted between January 28 and February 19, 1999. Survey results present the status of current use and expectations regarding the evolution of electronic commerce in Slovenia. The results are compared with data from similar research in eight European countries and the USA, conducted in 1998. Suggestions for future research are also presented.
1999	12th Bled eCommerce Conference	A model and evaluation of organisational learning in networked SMEs	Louis Raymond, Samir Blili, Lorraine Thibault	Our models of organisational learning must be adapted to the new forms of organisation such as the network enterprise and the virtual enterprise. A case study of 14 SMEs, members of a network of subcontracting enterprises for a large pivot-firm, allowed us to develop and validate such a model. Three groups of SMEs were identified in terms of network learning, the advanced firms, the intermediates, and the beginners.
1999	12th Bled eCommerce Conference	RESEARCH IN PROGRESS AND CASES	Bogomir Muršec and Franci Čuš	
1999	12th Bled eCommerce Conference	Using the Web to create the transparent enterprise - the success story of transtec AG -	Stefan Schäfer, Dietrich Seibt	Usually, processes between order placement and delivery of order are a 'black box' for customers. transtec, a German manufacturer and direct distributor of computer systems, has opened this 'black box' to its customers and provides access to its internal databases via the web. Information on the entire range of products, price, availability, delivery times or processing status is accessible on-line. Moreover, authorised customers are able to get information via "tracking & tracing" to know where their order is located at the courier company. All transtec Intranet and Internet applications are integrated and access the same relational database: the internal merchandise management system. In 1998 transtec has won two awards for its on-line activities, one sponsored by the German Federal Ministry of Economics and one sponsored by IBM Germany. This paper describes the success story of transtec. It illustrates the development of transtec's web presence from a pure informative service, with an on-line electronic product catalogue, to one of the best-performing on-line order systems in Germany. This case study should motivate and encourage other enterprises, i.e. SMEs, to take initiative and become more proactive in the digital economy.
1999	12th Bled eCommerce Conference	From Static Worlds to Complex Negotiations: A (Commercial) Agent's Perspective on Customizable Transactions	Arno Scharl, Christian Bauer, Marion Kaukal	The evolution of Web Information Systems (WIS) since 1991 has gradually shifted the focus from basic design issues to feedback analysis, visualization techniques, and agent-based adaptive negotiation support. Even during the early stages, WIS design efforts turned out to be quite substantial in scale and required a planned, managed, and structured approach. However, by keeping track of user interactions and automated reasoning, adaptive solutions avoid redundant repetition, facilitate navigation, and increase the perceived value of provided information or services. Mobile agents as proactive, goal-oriented systems promise to increase flexibility and will radically change inherent characteristics of electronic commerce. An evolution-based framework for WIS is provided and software agents are classified according to their functionality and architectural attributes into information, co-operation and trans-action agents. In this last stage of the framework, agents independently search virtual spaces and identify suitable business partners for exchanging information, negotiating contractual terms, and performing commercial transactions.

1999	12th Bled eCommerce Conference	Virtual Communities of Transaction: The Role of Personalization in Electronic Commerce	Petra Schubert, Mark Ginsburg	Bringing communities of buyers and sellers together in the arena of electronic commerce stimulates three major potentials: the building of trust, the collection and effective use of community knowledge and the economic impacts of accumulated buying power. In this context, we introduce the concept of Virtual Communities of Transaction and review important personalization approaches which we may utilize in their design: collaborative filtering, data mining, and techniques to optimize the user interface and the underlying product offerings. The key contributions of this paper are the elaboration of Virtual Communities, the presentation of a categorization scheme for different types of communities, the identification of classes of member profiles, and the innovative concept of community products. We conclude with the case of the Amazon.com Recommendation Center to illustrate key design ideas and discuss an evolutionary application, the Participatory Product Catalog.
1999	12th Bled eCommerce Conference	Applying Case-Based Reasoning Technology for Product Selection and Customization in Electronic Commerce Environments	Sascha Schmitt, Ralph Bergmann	Case-based reasoning technology opens a very promising and enriching new field for electronic commerce applications. However, current CBR applications for sales support in electronic commerce are limited to fixed, unchangeable products. In order to implement sales support for configurable products, the customization of base products must be supported as well. For this purpose, an interactive operator-based customization approach from CBR can be applied and realized as a flexible system for business-to-business as well as business-to-consumer applications. Such an approach is currently under development as part of the ESPRIT project WEBSSELL .
1999	12th Bled eCommerce Conference	Consumers in Swiss Online Grocery Shops	Pascal Sieber	Consumer behavior in online shops has not yet been subject to many research projects. We know little about the demographics of online customers and even less about the factors influencing their decision to buy. Initial research results show that - also online - willingness to buy is most influenced by trustworthiness of the suppliers (see [6]). And, of course, practitioners do market research both by questionnaires and server statistics. Most well known online shops such as Amazon.com, Dell Computers, Streamline Inc. gain competitive advantage by systematically gathering data from customers, analyze it and exploit it to shape their virtual storefronts, product ranges and more. This data is most often proprietary and not available to outsiders. As a contribution to the understanding about selling consumer goods on the Internet, the research presented here takes one example, grocery shopping in Switzerland, to learn more about online customers' characteristics and behavior. To do so, interviews were conducted with the three market leading online grocery shops in Switzerland and a survey done with 1003 online customers.
1999	12th Bled eCommerce Conference	The Legal Requirement of Authentication in Electronic Commerce	Anita Smith	This paper examines the legal requirements relating to identification and authentication in electronic commerce. Commonly cited methods of identification and authentication include digital signatures, public key cryptography and trusted third parties. This paper considers whether the trend to identify and authenticate has a justifiable legal basis, and furthermore whether these are desirable conditions to endorse as the uptake of electronic commerce continues to grow.
1999	12th Bled eCommerce Conference	VEGA*: A Software System for Virtual Enterprises	Benno Suter	This paper describes a software system that provides holistic support for virtual enterprises. Using a layered framework and taking a top-down approach, an overview is given of the various, interdependent system levels. The core element is a three-layer service architecture. In addition to a ubiquitous marketplace, which serves as a portal gate for virtual collaboration, this provides components for the support of interorganizational project and knowledge management processes. Finally, initial findings from a pilot are presented.
1999	12th Bled eCommerce Conference	An XML Application for Presenting and Explaining Regulations and Commercial Terms	Walter Thoen	Electronic Commerce offers Small and Medium-sized Enterprises (SMEs) the opportunity to trade on a global scale. Besides offering the opportunity, Electronic Commerce also places many new demands on SMEs. In this paper we describe specifically the demands of dealing with the many international regulations and commercial terms that govern international trade transactions. Because of these demands easy access to, and good explanation facilities of, these international regulations and commercial terms are very important. In this paper we discuss currently available and proposed solutions, such as the ICC Eterms initiative. Moreover, we present an improved solution based on the new XML and XSL standards.

1999	12th Bled eCommerce Conference	Attributable characteristics of goods and services in electronic commerce	Dr. Luba Torlina, Peter Seddon, Brian Corbitt	Within the popular and academic literature there is a proliferation of terms used to describe the goods and services being traded on the Internet. Terms used include digital products, information products, information goods, information services, information products, virtual products, and intangible digital goods. However, it is not clear exactly what these terms mean, nor how they give rise to value for the purchaser. In this paper a scheme for classifying the contributions to value of electronic commerce goods and services, i.e., digital products, is suggested, and the interrelationships between information, digital media and network as infrastructure components of value are examined. Some new products of the modern electronic economy are identified and special attention is given to the properties that determine their value.
1999	12th Bled eCommerce Conference	Multi-Channel Coordination in the Retail Financial Services Industry	Tonja van Diepen	Under increasing pressure of rapidly changing circumstances in their environment, businesses increasingly search for new and improved ways to connect with their customers. More and more businesses are introducing electronic distribution channels in addition to their existing physical channels like stores and intermediaries, however, often insufficient attention is paid to the implications that the addition of new channels has for the internal organization. A market approach using multiple different distribution channels influences the processes in, and the organization structure of, businesses. Therefore, structural attention is needed for the integration of new distribution channels and related processes in an existing organization. The research presented in this paper is aimed at formulating a theory on multi-channel coordination in the retail financial services sector. The contents of this paper represent the first phase in the research, which was aimed at exact problem identification using relevant theory and explorative case research in the Dutch financial services industry.
1999	12th Bled eCommerce Conference	Utilizing Information Processing for Enhancing Value: towards a model for supporting Business and Consumers within an Internet Retailing Environment	Adam Vrechopoulos, Katherine Pramatar, Georgios Doukidis	Information processing composes a critical success factor for business effectiveness. Consumer and Sales data comprise the core concept for supporting businesses to apply personalized Marketing/Sales strategies to satisfy consumers and gain competitive advantage. Towards this strategic objective, businesses are facilitated by the huge technology capabilities incorporated in an Electronic Commerce environment, facing an attractive business opportunity. Internet, as an "information intensive" trading channel, offers the appropriate framework for realizing such an objective. This paper defines an Internet Consumer Behavior Framework (ICBF) or in other words the information that a virtual retail store must collect (consumer, sales and navigation data). Furthermore, based on this information/data, it introduces a framework for providing Consumer (Consumer Support Model) and Business (Business Support Model) support. Finally, it examines the way that the various virtual store components contribute to this framework, by providing and exploiting the available information.
1999	12th Bled eCommerce Conference	TOWARDS AN INTERACTIVE MODELLING APPROACH FOR ELECTRONIC BUSINESS RE-ENGINEERING IN THEORY AND PRACTICE OF FINANCIAL LOGISTICS: COLUMBUS CASE	Arjen Wassenaar, Dirk Swagerman	New developments in telematics are enabling quite new electronic business and financial logistic transaction patterns between firms and their partners. Because current re-engineering approaches are mostly targeted at the development of intra-organisational information systems, this paper aims to explore a re-engineering approach for electronic business and especially financial logistics with greater emphasis on inter-organisational aspects in development. The need for an integral approach of electronic business and financial logistics will be argued and a framework is presented. An integrated reengineering approach is developed. The core of this approach is the interactive business modelling cycle. In a case study the feasibility of the business re-engineering approach in developing inter-organisational systems for electronic business and especially financial logistics will be explored.
1999	12th Bled eCommerce Conference	A Preliminary Theory of Telecommunications Enhanced Communities	W. David Wilde, Paul A. Swatman	This paper introduces the concept of a Telecommunications Enhanced Community (TEC). The TEC is a community which has a variable mix of real and telecommunications services for reasons of community sustainability. Some telecommunications services may be dispensed with if a population increase results from successful implementation. We examine a number of theories that can support such a concept and attempt to integrate a number to model the TEC.

2001	14th Bled eCommerce Conference	Pricing the Internet: The One-Component versus Two-Component Pricing Mechanism - An Evaluation	Soumit Sain	This paper investigates the efficiency of one-component pricing mechanisms versus two- component pricing mechanisms. The paper deals with four pricing mechanisms used in the Internet, namely, flat rate pricing, usage-based pricing, transaction-based pricing and version-based pricing for the analysis. The objective of the paper is to evaluate and analyse the ways in which the usage-based pricing mechanism is more efficient than one-component-based pricing and this evaluation has been made in accordance with the four examples cited. The paper observes the efficiency of the two-component pricing mechanism structure from both the sellers' and buyers' perspective and clears the way for further research in this area
2001	14th Bled eCommerce Conference	Developing Synergies between Faculty and Students of European Business Schools through Telecommunication and Computer Supported Cooperative Tools	Michel R. Klein, Valerie Gauthier, William Mayon-White, Vladislav Rajkovič	The goal of this paper is to describe a learning experiment which was initially the result of the collaboration between two Management Schools of the Community of European Management Schools (CEMS) network (Hautes Etudes Commerciales and London School of Economics) and which is being extended to other schools within (Wirtschaft University, Vienna) and outside this network (University of Maribor, Kranj). The learning experiment is a joint course on Project Management in an international environment when teams of students made up from students from each school use various means of communication to work from the distance to complete a project in limited time. Similarly, the faculties collaborate on teaching the course to their students, face to face, and to distant students at the same time using video-conferencing. Finally we shall draw some conclusions on the benefits and problems related to joint course development between academic institutions.
2001	14th Bled eCommerce Conference	eBusiness and Information Systems: Academic Programs in Australia and New Zealand in the e-Age	Elsie S.K. Chan, Paula M.C. Swatman	Universities are increasingly turning to 'fashionable' education programs to attract bright, high-quality students to both under-graduate and post-graduate degree programs. Traditional offerings in technology areas, such as Information Systems and Information Technology are being augmented by newer, more marketable degrees in areas such as eCommerce/eBusiness. This paper analyses the eCommerce/eBusiness and Information Systems (IS) / Information Technology (IT) academic programs in Australian and New Zealand universities on the basis of Kotler and Fox's service offering model of educational institutions; and considers what differences exist between these two apparently similar areas of academic endeavour. Finally we look at the trends of academic program delivery in the e-age and question whether universities need to take a more consumer-product approach to the issue of attracting appropriate students.
2001	14th Bled eCommerce Conference	Electronic Services Delivery	Edmond Pajk	This paper deals with Electronic Services Delivery, a form of Electronic Commerce in Services Sector. Firstly, it defines Electronic Commerce and Electronic Services Delivery and secondly, it then presents the Current State of either both in both Slovenia and in the World. The second part of the paper briefly presents the most interesting findings of an electronic Services Delivery and Electronic Commerce survey, which explores the current Electronic Services Delivery situation among the target group population in Slovenia. At the end, there are some recommendations to the organizations and to the government considering EC and ESD development.
2001	14th Bled eCommerce Conference	Global eT@xation: Competing Visions	Elaine Lawrence, Brain Garner	The Organization for Economic Cooperation and Development (OECD) places the issue of taxation of cross-border e-commerce transaction as one of its top four projects for investigation. In January 2001, some member countries agreed to a series of guidelines on how to apply existing tax treaties to Web transactions. After discussing potential threats and challenges facing etax administrators and possible solutions, the researchers report on the global momentum towards Extranets for collaborative knowledge management. Previous research indicated a need for a global etaxation Extranet for knowledge management based on the principles of the Cochrane Collaboration in the health sciences. These preliminary findings have been strengthened by parallel moves by the International Organization for Standardization (ISO) in setting up a global Extranet. The global imperative for harmonization of Internet commerce tax initiatives is reflected in contemporary interest in Europe in the redefinition of business requirements and processes related to corporate tax obligations.

2001	14th Bled eCommerce Conference	On Individual Web Usage Trajectories: Implications for Electronic Commerce and Public Policy	Mario Christ, Ramayya Krishnan, Daniel Nagin, Oliver Guenther	Over the last five years we have seen an exponential growth in the number of Web sites in the Internet. While the number of users making use of the Internet and the Web has also grown tremendously, at the level of the individual, little is known about the trajectory of change over time in the number of visits to Web sites. For example, we do not know whether the growth in Web usage is attributable to increased numbers of users or to increased intensity of use of established users or both. Moreover, little is known about how often users visit Web sites. This paper reports the results of an analysis of 156 weeks of longitudinal data on residential Web usage. This data was assembled as part of the CMU HomeNet project. Based on recent advances in semi-parametric, group-based statistical modeling, we examine whether there are distinctive clusters of Web usage trajectories. We find that Web users can be clustered into four groups with distinct trajectories of use. These groups achieve saturation in their extent of Web usage as measured in the number of distinct Web sites they visit over time. We also report demographic profiles of the identified groups, discover significant demographic differences that distinguish these groups, and discuss qualitatively the trajectory of the number of page hits of individuals in these groups over time. These results have important implications for electronic commerce and public policy.
2001	14th Bled eCommerce Conference	A Recommender System for Online Shopping Based on Past Customer Behaviour	George Prassas, Katherine C. Pramataris, Olga Papaemmanouil, Georgios J. Doukidis	With current projections regarding the growth of Internet sales, online retailing raises many questions about how to market on the Net. While convenience impels consumers to purchase items on the web, quality remains a significant factor in deciding where to shop online. The competition is increasing and personalization is considered to be the competitive advantage that will determine the winners in the market of online shopping in the following years. Recommender systems are a means of personalizing a site and a solution to the customer's information overload problem. As such, many e-commerce sites already use them to facilitate the buying process. In this paper we present a recommender system for online shopping focusing on the specific characteristics and requirements of electronic retailing. We use a hybrid model supporting dynamic recommendations, which eliminates the problems the underlying techniques have when applied solely. At the end, we conclude with some ideas for further development and research in this area.
2001	14th Bled eCommerce Conference	e-Privacy: Evaluating a New Search Cost in Online Environments	Dirk Annacker, Sarah Spiekermann, Martin Strobel	Electronic Commerce environments increasingly witness a conflict on the subject of e-privacy: While marketers want to maximize their customer knowledge and grasp the identity of their online users, consumers often want to stay anonymous and not reveal private information. The conflict suggests that 'private consumer information' should be respected as a new search cost for consumers in EC environments. The current paper aims to 'grasp' the phenomenon of this new search cost entitled as 'private consumer information cost' (PCIC). The paper aims to evaluate PCIC by identifying its main drivers and their interrelation. An empirical study is presented which shows that three factors, perceived importance, legitimacy and difficulty of online requests made by marketers in a purchase context explain much of the variance of PCIC. Empirical data also reveals how different types of information requests drive PCIC. The types of information distinguished are product information, information on product usage as well as personal information. Results hint at the fact that consumers accept personal information requests to a greater extent than one would expect, but only as long as they improve product- or service choice. It is concluded that marketers incur considerable opportunity cost of information if they do not respect the nuances evident in PCIC creation and do not rely on them for the strategic design of their online communication.
2001	14th Bled eCommerce Conference	Business Process Reengineering Using Intranets: A New Beginning?	William Golden, Martin Hughes	The growth and popularity of e-commerce has both challenged and enabled public sector organisations to redefine their levels of service. In the early 1990's BPR was proposed as a mechanism for change. However, after reports of successive BPR failures the momentum for BPR abated. This paper explores the relationship between Intranet Technology and BPR and, by means of case studies conducted in two organisations in the Irish public sector, investigates the potential of Intranet Technology to be an enabling technology for BPR.. The research found that Intranet Technology was a key enabler of BPR. However, even with such enabling technology BPR was not achieved in either organisation. The main reasons for this was due to a lack of open senior management commitment, inadequate planning, limited project scope, lack of a high level project champion and inadequate planning of employees incentives to promote the provision of content for the Intranet.

2001	14th Bled eCommerce Conference	Automated Negotiation on Agent-Based e-Marketplaces: An Overview	Susanne Klaue, Karl Kurbel, Iouri Loutchko	This paper first describes a few existing models for product and merchant brokering and automated negotiation in the framework of agent-based e-marketplaces. Our analysis shows that only simplest types of automated negotiation protocols are currently presented online, whereas some powerful systems have been already implemented in the product and merchant brokering field. Then we give an overview of theoretical approaches to automated negotiation including game theory based negotiation, multi-attribute utility theory based negotiation and auction based negotiation. We also discuss some further challenges for researchers and practitioners working in the field of automated negotiation in the framework of agent-based electronic marketplaces.
2001	14th Bled eCommerce Conference	A Graphical Design Interface for XML Schemas	Ronald M. Lee	A graphical interface for designing XML Schemas is presented. The current version of this interface is based on the Schema for Object Oriented XML (SOX), but the constructs are easily generalizable for other schema representations as well. The main advantage is to use the two-dimensional visual field of graphical interface plus multiple windowing to capture more intuitively represent the hierarchical decomposition and re-usability of the XML element definitions. Initial user experience has been quite positive.
2001	14th Bled eCommerce Conference	Increasing Trust in e-Commerce: Concepts and Examples of Insurance Solutions	Claudia Loebbecke, Vera Hornig	Consumers have embraced the concept of e-Commerce although less enthusiastically than expected. Major concerns still exist regarding the use of the Internet for private purchasing. Trust is seen as a factor that is becoming increasingly important for both consumers and content managers alike. Various trust-related support features for online transactions are available, but most lack any form of guarantee or insurance for the parties involved. In this context, the paper seeks to explore the concepts and potential contributions of contract-based guarantees and insurance services with regard to business-to-consumers online transactions. After outlining available seals of approval and insurance solutions for B2C online transactions, the paper drafts a first research framework for investigating different insurances. The case of 'Trusted Shops', backed by a German insurance provider, illustrates the concept of insurance solutions and analyzes benefits and risks for all parties involved. The potential advantages and limitations of extending the concept along the dimensions 'scale' and 'scope' are presented. The paper concludes by providing some suggestions for further research.
2001	14th Bled eCommerce Conference	Diffusion of Electronic Business in Networks - Case Autolinkki Teaching Case	Heli Salmi, Virpi Kristiina Tuunainen	In 1993, the idea of an industry wide Electronic Business (eBusiness) solution in the car spare part industry was born. The Association of Technical Traders formed a network for the project itself consisting of a service provider, wholesalers and software houses. Within a year, the technical solution, Autolinkki, was defined, built and was up and running. The Autolinkki covers eBusiness between wholesalers and their customers, dealers. Dealers are typically small and medium sized companies, SMEs. The system facilitates electronic orders, order responses, price and balance information as well as invoices. The system started with pilot users and was slowly but steadily adopted by the users. The diffusion was actively promoted by the project group. Today, Autolinkki's electronic transactions are a de facto feature in the dealers' information systems infrastructure. Compared to similar projects, the Autolinkki is a success story. Which factors in the business and in the project made the success? What are the attributes supporting the diffusion in a network? How the diffusion was accomplished? "You know, a dealer becomes a user always like this. First, they do nothing. After implementing the system, some test orders arrive, but after that there is no curve, the use rate rises to the top at once! After the Autolinkki is tested by the customer, the rate of ordering is immediately nearly 100 percent. Which points out only that the Autolinkki is a good system. Customers ordering just part of their volume using the Autolinkki, are very hard to find. It's either or." Chairman of the Board Jarmo Rosenqvist, Arwidson Oy [a wholesaler].



2001	14th Bled eCommerce Conference	Exploring the Digital Divide: Institutional Foundations for Electronic Commerce	Carleen F. Maitland	Electronic commerce, by providing economic incentives for Internet use, could be a key to addressing the growing developed/developing country 'digital divide.' Developing countries' potential to reap the benefits of e-commerce will be partially determined by their institutional environment. Certainly, institutions that create barriers to traditional commerce will influence the potential of electronic commerce as well. Although expectations of these difficulties abound, little is known specifically about which institutions present the greatest problems and how they can be resolved. This research contributes to this knowledge through an exploration of the functioning of traditional commercial institutions in two cities: Dar es Salaam, Tanzania and San Diego, USA. By comparing a limited set of traditional commercial institutions relevant for business-to-business (B2B) e-commerce among small firms, institutions that pose the greatest problems can be identified. This results in a focused set of recommendations for policy makers concerned with facilitating e-commerce in Dar es Salaam and similar developing country environments. Furthermore, examining the differences in the potential for e-commerce between the two cities permits a realistic assessment of the potential for e-commerce to bridge the 'digital divide.'
2001	14th Bled eCommerce Conference	Managing Change for e-Business Success	Janice M. Burn, Colin G. Ash	The paper examines a model that proposes various antecedents to successful e-business change management in ERP environments. A case study of an e-business project for a personnel management system within a large traditional engineering company is described in the context of this model. The specific goal of the research is to determine facilitators that lead to e-business project success of these change efforts. The results show that performance gains from the Intranet-ERP project were accompanied by the presences of facilitators in all dimensions of the framework. Of particular importance were those components related to employee empowerment – knowledge management, relationship building, and learning capacity.
2001	14th Bled eCommerce Conference	ING Group:Coordinating Channels	Tonja van Diepen	This paper represents the shortened version of a teaching case with a focus on the problem of multi-channel coordination in the retail financial services sector. It should be noted that this case was prepared as the basis for class discussion rather than to illustrate either ineffective or effective handling of a problem.
2001	14th Bled eCommerce Conference	A Survey of Electronic Contracting Related Developments*	Yao-Hua Tan, Walter Thoen, Somasundaram Ramanathan	We analyze the current state of electronic contracting systems. In the first part of the paper, we present a model based on a list of functions that an electronic contracting system should perform. We apply the model to discuss the current state of academic research and commercial software developments in the field of electronic contracting systems. We also point out directions for future research.
2001	14th Bled eCommerce Conference	Building e-Business Models: An Analytical Framework and Development Guidelines	Dimitrios A. Papakiriakopoulos, Angeliki K. Poylumenakou, Georgios J. Doukidis	The adoption of e-business innovation requires a framework guiding sustainable business development. The required elements and construction of a business model, particularly in the area of e-business is still an insufficiently addressed topic. In this paper, we draw on theoretical constructs relevant to the transformation introduced to value creation by the adoption of e-business practices to propose an analytical framework and a development method for constructing e-business models. The proposed method is then applied to the transformation of the advertisement thought television industry by extending interactive TV advertisement services.
2001	14th Bled eCommerce Conference	A Formal Approach to Dialogs with Online Customers	Sascha Schmitt, Ralph Bergmann	This article describes a formal approach for dynamically directed sales dialogs that avoids certain disadvantages found in online sales systems today. These disadvantages stem from an information deficit that we call a knowledge gap between the customer and the vendor. The suggested approach generates situation-dependently appropriate actions, e.g., asking the right questions, flexibly reacting on customer's decisions and also providing her with information needed. The dialog approach integrates the communication process in an accompanying search process. Furthermore, the structure of the product database is considered for question selection to focus on dialogs of reduced length, i.e. with respect to the number of questions to be asked.
2001	14th Bled eCommerce Conference	To Trust or Not to Trust? A Model of Internet Trust from the Customer's Point of View	Lawrence Ang, Chris Dubelaar, Boon-Chye Lee	Trust is a major issue in Internet transactions. This paper presents a model of trust on the Internet that focuses on three dimensions of trust. It investigates the perceived value a consumer places on these dimensions when set in the context of different product categories, price discounts and immediacy of purchase. It is argued that the more willing an Internet merchant is to heed these three factors, the greater the perception of trust and hence the greater the probability of a transaction.

2001	14th Bled eCommerce Conference	Factors Influencing the Usage of Websites: The Case of a Generic Portal in the Netherlands	Hans van der Heijden	In this paper, we empirically investigate an extension of the Technology Acceptance Model (TAM, Davis, 1989) to explain the individual acceptance and usage of websites. Conceptually, we examine perceived ease-of-use, usefulness, enjoyment, and their impact on attitude towards using, intention to use and actual use. The paper also introduces a new construct, "perceived visual attractiveness" of the website and suggest that it influences usefulness, enjoyment, and ease-of-use. For our empirical research we partnered with a Dutch generic portal site with over 300 000 subscribers at the time the research was conducted. The websurvey resulted in sample size of 825 respondents. The results confirmed all of the 12 hypotheses formulated. Three findings are worth mentioning in particular: (1) intention is most dominantly influenced by attitude ( $\hat{\alpha} = 0.51$ ), (2) ease-of-use, enjoyment, and usefulness contribute equally to attitude towards using ( $\hat{\alpha} = 0.23, 0.23$ , and $0.17$ respectively) and (3) visual attractiveness contributes remarkably well to both ease-of-use, enjoyment, and usefulness ( $\hat{\alpha} = 0.41, 0.35$ , and $0.21$ ). Although this is not the first research to apply TAM to an internet context, we claim three major contributions: (1) a single website as the unit of analysis, (2) the introduction of visual attractiveness, and (3) the use of "real" website visitors rather than student samples. Promising future research lies in the conceptual connection between actual website features and website use, a connection for which the TAM framework provides a meaningful bridge.
2001	14th Bled eCommerce Conference	E-nchantment - Wiederverzauberung in Contemporary Computer Games	Peter Norberg, Nicklas Lundblad	The use of technology has contributed to what Max Weber termed the "disenchantment of the world". Curiously, however, we see that certain computer applications – primarily computer games – are now used to re-enchant the world by once again allowing magic, moral and narrative into what was constructed to be a rational reality. This project – the re-construction of the enchanted world – is an interesting social phenomenon and likewise an important social trend. We describe some of the elements in both dis- and re-enchantment, and provide a small case study of the game Asheron's Call to support the hypothesis that we are in today's computer games indeed witnessing a counter-reaction against the rational world-view.
2001	14th Bled eCommerce Conference	Information Kiosk for Use in Electronic Commerce: Factors Affecting its Ease of Use and Usefulness	Lai-Lai Tung	This study has several objectives, which includes understanding the differences amongst kiosks in terms of factors affecting ease of use and usefulness, as well as future improvements that kiosk users want. Towards that end, the three research questions of this study are: "What are the most important factors affecting a user's belief of ease of use and usefulness of kiosks?", "Are there differences in these factors for different types of kiosks?" and "What are users' desired improvements for the future?" Results indicated that the top four determinants of ease of use and usefulness are ease of operation (ease of use factor), data security (reliability and security of data factor), convenience (location factor) and reliability of data (reliability and security of data factor). Further analyses of the results highlighted that the factor reliability and security of data differed significantly amongst the different types of kiosks. Finally, while users of kiosks are found to be receptive of information kiosks, they have noticeable contributions and suggestions as to how information kiosks can better serve their needs in future. The more significant suggestions include making kiosks operate faster, introducing more functions, and improving user-friendliness. The paper ends with a section on implications for EC practitioners who may be developing and implementing kiosk applications.
2001	14th Bled eCommerce Conference	e-Pharmacy (www.e-pharmacy.com.au): A Successful Online Pharmacy in Australia	Michael S. Lane, Andy Koronios	
2001	14th Bled eCommerce Conference	Web Content Management	Richard Vidgen, Steve Goodwin, Stuart Barnes	Most organizations have implemented a Web site. Many are now experiencing problems associated with maintaining the content of their Web site. The webWeb manager often becomes a bottleneck for new content, old content fails to be removed, and new content can be published without approval. Although Web content management (WCM) methods and technologies are emerging, the market is crowded with suppliers and there is confusion concerning what WCM is, where it came from, and what facilities and services it should incorporate. We describe the antecedents of WCM (document management, customer relationship management, software configuration management) and develop a WCM framework. The WCM framework is applied to a case study of an Intranetintranet implementation in order to test the framework and to highlight WCM problems in the case study.

2001	14th Bled eCommerce Conference	eCommerce and the Region: Not Necessarily an Unequivocal Good	Darryl Coulthard	eCommerce is generally assumed to be an unequivocal benefit for regional areas. Drawing upon the globalisation literature and the experience in Australia as a case study, this paper questions whether eCommerce is an unequivocal benefit and suggests that at least in some cases eCommerce may lead to the increased import of goods and service into non-metropolitan regions and the domination of these regions by large businesses based in urban areas. The impact of eCommerce in non-metropolitan areas needs to be systematically studied and a number of research avenues are suggested.
2001	14th Bled eCommerce Conference	Towards a Taxonomy of B2B e-Commerce Schemes	Roger Clarke	Many commentators on business-to-business (B2B) e-commerce implicitly assume that such systems are relatively homogeneous. Existing theories of information systems and markets, and the practice of procurement are used in order to explain the nature and dimensions of B2B schemes, and the dimensions across which they differ. This provides a basis for more effective conception of systems to serve the needs of organisations and the industry sectors in which they operate, and, ultimately, consumers of their output. It is concluded that a principle of requisite variety needs to be applied, that organisations' varied needs demand multiple, diverse forms of marketplace, and that many flowers need to bloom before the surviving patterns will be determined.
2001	14th Bled eCommerce Conference	Consortium-Based B2B e-Marketplaces – A Case Study in the Automotive Industry	Stefan Baldi, Hans P. Borgman	'Old economy' companies are increasingly setting up marketplaces for procurement of supplies, either alone or as part of a consortium of competitors within an industry. In this paper we develop a framework for governance structures of electronic markets and contrast different structures by using a case study in the automotive industry. Focus is General Motors' decision to join the industry market place Covisint and Volkswagen's decision to build an individual solution. Building on multiple theories from inter-organizational relationship formation we analyze the advantages and disadvantages of the private exchange vs. the consortium-based exchange and illustrate these within our case, working towards a comprehensive contingency framework.
2001	14th Bled eCommerce Conference	Design of an Open and Distance Learning Framework Focused on Knowledge Management	Philipp Amann, Gerald Quirchmayr	The main objective of the proposed Open and Distance Learning (ODL) framework structure is to foster the contribution, assessment and reuse of concepts and content in a secure and controlled manner. Based on Knowledge Management (KM) tools and concepts, pedagogues should be motivated and supported in reusing information and knowledge, instead of 'reinventing the wheel'. In particular, open issues such as content classification, distribution and representation, but also licensing and copyright problems as well as basic organisational and managerial aspects are addressed. The key aspect is not the invention of a new technology but the intelligent integration and exploitation of existing concepts and solutions. Specifically, it is suggested to integrate and utilise open standards to ensure platform independence and facilitate the development and integration of new requirements, concepts and third-party tools. The technical approach focuses on Portal concepts, which provide the technical basis to store, archive and retrieve structured and unstructured information in electronic format as well as means to communicate in asynchronous and synchronous manner. Furthermore, they allow personalising one's view on information and interfacing other systems in a consistent and unified way. In respect to the technological change, a modular and expandable design has been chosen, which facilitates the integration of future concepts and techniques without the need for redesigning the whole framework.
2001	14th Bled eCommerce Conference	European Cities Platform for Online Transaction Services: The EURO-CITI Project	Efthimios Tambouris, Stelios Gorilas and Elias Spanos, Anastasios Ioannidis, Gema Isabel Lopez Gomar	In this paper the European Cities Platform for Online Transaction Services (EURO-CITI) project is presented. The EURO-CITI project aims to specify, develop and demonstrate a common architecture and related services targeting the public sector. The proposed services include tele-voting, electronic submission of forms and tele-consulting. Tele-voting will be used for opinion polls petitions that can be initiated by both the local authorities and citizens aiming to reinforce the concept of direct democracy. The proposed architecture will integrate and where appropriate enhance key technologies for security, authentication/authorisation, data description, user-centered interfaces, etc. The resulting EURO-CITI platform will be dynamically re-configurable to allow for example simultaneous voting on the same problem at geographically distributed areas. The trials will be supported by a generic methodology for process re-engineering and will take place in three major European cities, namely Athens, Barcelona and the London Borough of Brent.

2001	14th Bled eCommerce Conference	The Role of Trust in Business-to-Business Electronic Commerce in Singapore	Lai-Lai Tung, Bennett Yeow Hoong Whye, Chin Ee Tee	The Internet is a global and borderless environment, and it will be a challenge having to identify and trust the other party whom one is transacting with. Developing and communicating trustworthiness to one's business partners is crucial at a time when business opportunities in e-commerce are flourishing. The objective of this study is to examine the role that trust plays and the extent to which it drives business-to-business e-commerce participation in Singapore. Indeed, knowledge of the role of trust, in its specific dimensions, will be useful to businesses in meeting the future competitive pressures surrounding it in the e-commerce context. Trading partner trust and electronic trust are examined as the independent variables of participation. The results demonstrated that both trading partner trust and electronic trust are significantly related to participation in e-commerce. Furthermore, of the three dimensions of trading partner trust, keeping commitments, negotiating honestly and taking advantage, the data suggests that keeping commitments may comparatively be the more important driving force of trust.
2001	14th Bled eCommerce Conference	Implementation Success of Internet-based Electronic Commerce for Small- and Medium-sized Enterprises in Australia	Sandy Chong, Graham Pervan, Christian Bauer	This study surveys the perceptions and experience of Australian small- and medium-sized enterprises (SMEs) in the adoption and implementation of Internet-based Electronic Commerce. Employing Rogers (1995) model of innovation diffusion as the framework and considering Electronic Commerce (EC) as a form of new innovation, we analyse factors affecting EC implementation success. With a sample of 71 small businesses in Australia, preliminary results show that respondents' perception of the attributes of Internet-based EC are pre-dominantly positive. However, a further analysis was carried out regressing overall satisfaction of EC implementation on the five attributes of innovation. It was found that only 3 characteristics - perceived relative advantage, compatibility and complexity to make a significant contribution to the implementation success of Internet-based EC adoption.
2001	14th Bled eCommerce Conference	AQIS, EXDOC and the 'Meaties': An Interpretivist Case Study of an Australian Export Documentation System Implementation	Linda Wilkins, Paula M.C. Swatman, Tanya Castleman	EXDOC is an on-line export documentation system implemented by the Australian Quarantine Inspection Service [AQIS] and used currently by 90% of meat exporters. At a time when governments world-wide are increasingly committed to introducing electronic service delivery [ESD], this is a timely exemplar of innovative practice. In this paper, we consider the initial implementation of EXDOC in the meat export sector in order to identify the factors that led to the successful adoption of this system. We consider these factors in the context of diffusion of innovation literature supplemented with Bijker's social constructivist framework. The theoretical flexibility provided by this combination of approaches enabled us to draw out a number of implications from the data that bear on strategy formulation. Factors found to have significant bearing on the early adoption of EXDOC included: (1) idiosyncratic factors precipitating the initial implementation (2) the constraints based on accommodating user capabilities (3) the organisational role taken by AQIS (4) diffusion as a self-reinforcing and value-adding effect. A standard represents both a problem as a requirement of such a system and a problem solving strategy eliciting compliance to the system requirements. Over the period of shaping and stabilizing of the industry standard, AQIS was required to act as facilitator in the coordination of the actors. The implementation of systems like EXDOC enables users to identify what they want from a system, specifying their preferences and tradeoffs. Such implementations offer opportunities for systems redesign within export business sectors with major strategic implications for the industry.
2001	14th Bled eCommerce Conference	Nettmarket.com (Finland): A Virtual Grocery Retailer	Tawfik Jelassi, Pirkko Walden, Bill Anckar	On a typical snowy day in early January 1998, as he was driving towards Helsinki, Aki Teranto spotted a poster on the motorway for Internet grocery shopping. The slogan read: "Don't stand in line anymore, just go online!" He thought, if it is possible to sell groceries online in Helsinki, why would it not be possible to do so in Turku. Turku is the fourth largest city in Finland and has approximately 180,000 inhabitants (including the suburbs). Helsinki, the capital, has a population of 1 million, including the nearby cities of Espoo and Vantaa (see Figure 1). ? A few months later, with the help of two partners and his wife, Eija, Aki launched Nettmarket.com, the first Internet grocery shop in the Turku area. Today, the business is still in its infancy, but the signs of growth are already visible...
2001	14th Bled eCommerce Conference	A Longitudinal Study of the e-Market for Software Components	Jos van Hillegersberg, Vincent Traas, Roland Dragt	Component Based Software Development (CBD) holds high promises, but develops its full potential only when software components are traded in a component market. The Internet seems ideal for this purpose and various sources have predicted a bright future for the Internet Software Component Market (SCM). However, very little is known about the current status, structure and trends within the SCM. This study develops a model of the SCM and a classification of components traded in the SCM. Using these, a number of propositions are developed and tested using a longitudinal dataset. The results show that the SCM is still in its early stage although there are some trends towards a mature market. The research method deployed in this study provides insights into how the SCM develops and can also be deployed to study other e-markets.

2001	14th Bled eCommerce Conference	Combining Physical and Virtual Channels: Opportunities, Imperatives and Challenges	Charles Steinfield, Harry Bouwman, Thomas Adelaar	Despite the attention focused on click and mortar strategies, little empirical work has directly addressed the sources of competitive advantage of this approach, nor the factors that distinguish between a successful and unsuccessful implementation. In this paper, we review theoretical work that establishes the basis for expecting synergy between e-commerce and physical presence in a market. We then describe a series of cases illustrating the types of synergies gained by click and mortar firms. Sources of competitive advantage arising from click and mortar e-commerce models are described, as well as management approaches that facilitate the formation of successful click and mortar strategies.
2001	14th Bled eCommerce Conference	Web Site Evaluation: Do Web Applications Meet User Expectations? Music, Consumer Goods and e-Banking on the Test Bed	Petra Schubert, Walter Dettling	The paper presents an analysis of twelve commercial Web sites in three different business sectors: music, consumer goods, and e-banking. The Web sites were assessed using the Extended Web Assessment Method, an evaluation tool which has been specifically created for the assessment of e-commerce applications. The findings show that most Web sites are far from fully meeting user expectations. Interestingly, the lessons learned are quite different for each sector. Music selling Web sites should have an easy job in meeting customer requirements because they can deliver their products directly over the Internet. Nevertheless, the download of mp3 files from US-based companies onto a Swiss computer seemed to be a big problem. Consumer goods are a local business. Despite of this possible disadvantage they showed the best performance in satisfying their customers. E-banking applications do not present differentiated features, one can seemingly be replaced by the other with no problem.
2001	14th Bled eCommerce Conference	Efficient Service Production and Consumer Choice of Delivery Channels	Niina Mallat, Tomi Dahlberg, Timo Saarinen, Virpi Kristiina Tuunainen	New technologies, such as the Internet and mobile phones, give companies possibilities to deliver services to customers in multiple ways. In this article we analyse how banks have used the possibilities and how their retail customers have adopted new channels for different services. We developed a model for efficient delivery strategies based on institutional economics. The alternative generic strategies are predefined contracts, self-service and use of service personnel to obtain full service. The structuredness of services and level of channel automation determine what strategy should be used in a given situation. We conducted a mail survey on the use of delivery channels for retail banking services. The results indicate that customers' behaviour match rather well with the strategies that are efficient to produce the services. However, some deviations were also observed. These discrepancies were analysed and new insights generated to understand better the customer choice of service channels. Our model and the empirical findings can be used to develop the delivery of banking services, but more importantly, other industries might find them useful when creating same kind of service infrastructures as the banks already have.
2001	14th Bled eCommerce Conference	Effective Management and Policy in e-Business Security	Sharman Lichtenstein, Paula M. C. Swatman	The use of the Internet in organisations and companies for carrying out various business activities is becoming an increasingly major component of e-business. Accidental and deliberate misuse and abuse of the Internet by internal employees and external parties, combined with the increasingly vulnerable global Internet infrastructure and the paucity of Internet regulation, has led to an Internet security problem for organisations. This paper reports the major findings from a four year study (1996 – 2000) which included substantial exploration of e-business security issues via six case studies at five medium-to-large organisations, as well as a focus group of industry leaders. The research results include an holistic framework for e-business security policy. The research also highlights the importance of human issues and the need for changes, in current practices in e-business security management and policy.
2001	14th Bled eCommerce Conference	Voices of Experience: Developing Export Capability through eCommerce in Australian SMEs	Tanya Castleman, Marina Cavill	This paper reports an exploratory study of 19 Australian SMEs which had successfully used eCommerce develop to or enhance their export capability. The purpose of the study was to identify both successful adoption processes and impediments to using eCommerce for export. Few companies had adopted a strategic and planned approach to managing this adoption. The lack of easily accessed and trustworthy information and advice was partly responsible. The study identified a number of other obstacles to eCommerce export development, including infrastructure and technical deficiencies, lack of awareness and expertise, problems with banking and finance and problems with physical links into export destinations. The developments that would most enable Australian companies to use eCommerce for export are identified as: improvements in the infrastructure on which eCommerce depends; the provision of consolidated, impartial information and advice about the use of eCommerce for export; and training and skills development to facilitate the implementation of eCommerce for export.

2001	14th Bled eCommerce Conference	Transaction Breaks: A Litany of Errors	Edward A. Stohr, Russell P. Stohr	Transaction processing systems, whether traditional or Web-based, are prone to error. A "transaction break" occurs when the normal execution process for a transaction has to be suspended because of an unresolved issue. In almost all cases, costly human intervention and negotiation between trading partners is required to solve the problem. There are all sorts of reasons why transaction breaks occur, including faulty software systems, human error, and physical mishaps. Such breaks are estimated to occur in about 11% of all transactions and to cost e-commerce participants billions of dollars per year (Gartner,2000). This paper analyzes the sources of transaction breaks and describes a software support system called a Transaction Processing Resolution Net (TPRN) that assists in their resolution. Keywords: electronic commerce, B2B transaction processing, error resolution
2001	14th Bled eCommerce Conference	News Release: From Newspaper to Electronic News Broker	Frederikke Krogh-Meibom	Media companies experimenting with electronic publishing are seeking for sustainable business models. Based on the case of the leading Danish business newspaper, Børsen, the move from traditional publishing towards electronic publishing is analysed. After a brief review of Børsen's current business and core competences, the challenge of 'going digital' is examined from three perspectives – the customer value propositions offered, the value chain activities to be considered, and the timing of entry into electronic publishing. The economic concept of syndication is applied as the strategic option for Børsen in its future elaboration of a sustainable business model.
2001	14th Bled eCommerce Conference	Electronic Commerce and Electronic Business Implementation Success Factors	Vatcharaporn Esichaikul, Sivaporn Chavananon	Currently, Business-to-Consumer Electronic Commerce, Business-to-Business Electronic Commerce and Electronic Business are widely adopted as new strategies to gain more business advantages over the competitors. Nevertheless, the success in deploying such electronic business applications does not rely only on business contribution but involves many business factors as well. The purposes of the study are mainly to identify the potential common and specific factors dealing with the success of implementing Business-to-Consumer Electronic Commerce, Business-to-Business Electronic Commerce and Electronic Business, as well as to provide the guidelines for achieving the development of these applications. Principally, the factors are organized into a class of factors: policy factors, organization factors, human resources management factors, business factors, customer relationship management factors, technology factors, security factors, and environment factors. Finally, the results of the study will give a useful direction for the future development of Electronic Commerce and Electronic Business in the business environment.
2001	14th Bled eCommerce Conference	Consumers on the Internet – How Common is it to Shop Online? - A Study of Who in a Population, Is Shopping on the Net?	Ingvar Tjostheim	The web-population in one of the Scandinavian countries, Norway is the focus of this study. National representative telephone surveys are used in order to measure the popularity of Internet-shopping among Norwegian consumers. Key findings are; the typical frequent Internet-shopper tends to be male, a majority of them have a college or university degree, they are relatively young and have a relatively high income. It is quite common to shop online - nearly half of the Norwegians with access to Internet has purchased something on the Internet at least once, and the growth figures from 1999 to 2000 were surprisingly high. A cluster analysis shows that it is the most frequent Internet-users that also are spending most money online. The online private consume for 2000 was approximately 1.6% of the total consume in Norway.
2001	14th Bled eCommerce Conference	The Impact of Electronic Goods Trading on Customs Revenue	Susanne Teltscher	With the advent of cross-border electronic commerce, an increasing number of products that have been traded physically in the past are now imported digitally. This raises a number of issues, which are currently debated at the international level: should these products be defined as goods or services; which multilateral trade rules should govern them; and, should they remain tariff and tax exempted? The paper addresses these questions by discussing definitional, regulatory and fiscal aspects of electronic goods trading and demonstrates the links among them. In particular, it analyzes data on trade, tariffs and other import duties for "digitizable goods" and calculates potential revenue losses, should physical delivery of products be replaced by digital delivery. Findings show that, while for most countries overall shares in trade are still small and thus fiscal losses negligible, some developing countries would be affected considerably by tariff revenue cuts. If other duties are taken into consideration, in particular domestic consumption taxes levied on imports, all importing countries would suffer major revenue cuts as a result of electronic goods trading.

2001	14th Bled eCommerce Conference	Temporality, Priorities and Delegation in an E-Commerce Environment	Luís Brito, Paulo Novais, José Neves	Logic presents itself as a major tool in the development of formal descriptions for agent-based systems; indeed, Logic Programming (LP) and specially Extended Logic Programming (ELP) provide a powerful tool for the development of such systems, besides being mathematically correct (and subject to proof) are easy to prototype. On the other hand Electronic Commerce (EC) poses new challenges in the areas of Knowledge Representation and Reasoning (KRR) and formal modelling, where specific agent architectures are mandatory. In this work such a problem will be approached by the Experience-Based Mediator (EBM) agent one, particularly suited to take into account the argumentation processes that are inherent to any EC deal. The last but not least, although logic has been successfully used in the areas of argumentation (specially, legal argumentation), the reasoning process that happens before hand is rarely stated. In EC scenarios, such process takes into account features such as temporality, priorities, delegation, making use of incomplete information, and leading to feasible EC systems.
2001	14th Bled eCommerce Conference	The Integration of SET in Australian Based Internet Payment System Products: A System Developer's Perspective	Mustafa A. Ally	The SET (Secure Electronic Transactions) protocol was designed as an open industry standard for the secure transmission of payment information over private and public networks. Anecdotal evidence suggested that SET had been slow to get off the mark in Australia for several different reasons, notably the absence of software products, its limited functionality, and cost of implementation. This exploratory study sets out, firstly, to identify the reasons for this reluctance to adopt and implement SET by a variety of Internet Payment System (IPS) developers promoting their products in the Australian e-Commerce market. This begs the question as to the level of consideration given to security and other payment system issues in these systems. To this end, the paper then analyses the alternate tools and services these vendors have utilized (if any) in order to comply with the established payment security requirements of confidentiality, authentication, integrity and non-repudiation that SET was designed to address.
2001	14th Bled eCommerce Conference	e-Business Adoption by Manufacturing SMEs in Regional Australia	Robyn Lawson, Carole Alcock, Joan Cooper	Using the Internet for electronic business has become an area of action for the Australian Government, and programs have focussed on raising the awareness of small and medium sized enterprises (SMEs) to the opportunities offered by doing business on-line. As the manufacturing industry in Australia has experienced productivity improvements, the outlook is strong and Australian manufacturing SMEs are ideally placed to gain a competitive advantage in global trade. The results of this research indicate that while most manufacturing SMEs in regional Australia use computers, with a majority using email, only a small percentage utilise the Internet for transaction processing. Major barriers to becoming involved in electronic business are identified as concern about security and privacy of transactions, cost of consultants, and lack of IT expertise of staff. Examination of planned IT staff training methods reveal that employing people with appropriate knowledge has been added to current methods such as on-the-job training. Results from two regional areas are compared.
2001	14th Bled eCommerce Conference	The Growth of Broadband Internet Connections in South Korea: Contributing Factors	Heejin Lee, Bob O'Keefe, Kyounglim Yun	During the past two years, Korea has seen a remarkable development in broadband Internet connections. This paper explores the factors contributing to the development from three viewpoints: government-driven, private sector-driven and social background. The paper first presents the recent broadband Internet trends in Korea, and briefly describes the local loop unbundling process in UK. While the broadband Internet market in Korea is characterized by high competition, the British market lacks competition. It concludes with challenges ahead which policy makers and industry leaders face.
2001	14th Bled eCommerce Conference	A Comparison of Online Electronic Commerce Assurance Service Providers in Australia	Vasant Rao, Narciso Cerpa, Rodger Jamieson	Assurance services have become important due to the medium in which Electronic Commerce (EC) is conducted. As the name suggests, EC takes place in a virtual environment and across geographical boundaries. In such conditions, customers find it difficult to verify the credentials of the online business, are sceptical of online trading and have real concerns about the security and privacy of their data and transactions. To bridge this trust gap, Electronic Commerce Assurances Services have recently emerged – to verify the credentials of EC businesses and to certify them in a manner in which the online user will be more confident when carrying out e-business. The main aim of this paper is to conduct a comparative study and analysis of four major assurance service providers currently active in Australia. This paper compares the service providers by the functionality of services provided and aims to discuss advantages and pitfalls with their use.

2001	13th Bled eCommerce Conference	Dell: Selling Directly, Globally	Ali F. Farhoomand, Pauline S. P. Ng	Being one of the first companies to practice the highly touted business-to-consumer Internet business model, Dell entered the PC market with a force that shook up the industry. Its revolutionary, customer-oriented, streamlined direct style was unique in both the US and in markets world-wide. Online PC sales for Dell were a natural progression from this existing direct marketing strategy; Dell realised this synergy early and was the first market entrant. From this platform, Dell has targeted to sell at least fifty per cent of its total sales volume through the Internet by 2002. The case tracks Dell's evolving business and industry, and highlights its entry strategy for China; particularly the realism of its targeted online sales, and sales in the region.
2001	13th Bled eCommerce Conference	Issues Affecting the Implementation of Electronic Commerce in SMEs in Singapore	Brian J. Corbitt, Wei-chang Kong	This study aims to understand the reasons for adoption or non-adoption of Electronic Commerce in SMEs in Singapore, and to explain the importance of those issues affecting adoption. The Singapore Government has consistently focused on promoting informatization and information industry development as a key thrust in the economic development strategy of the island economy (IMCM, 1998). The "electric commercialization" of Singapore started in 1996 with the National Computer Board (NCB) at the forefront with the Electronic Commerce Hotbed Program (ECH) to jumpstart the pervasive use of electronic commerce and position Singapore as a hub for electronic commerce. Using a qualitative research method and in depth interviews with five SME participants, this study identifies both the success factors that encourage adoption of Electronic Commerce in Singapore and the barriers against adoption. In conclusion, this study shows that those factors are inherently linked with the policy process. This study reports a number of issues, which should frame larger scale quantitative studies across industries and across organizational scale.
2001	13th Bled eCommerce Conference	IT-Security in TOP700 Industrial Companies in Germany	Michael Kühnhold, Günther Pernul, Gaby Herrmann	In this paper we present the results of our survey on IT-security focussed on the TOP 700 industrial companies in Germany. Every year, many studies on the security situation in companies are published. They, however, focus mostly on the situation in the United States or include financial or public institutions. In contrast, our survey only includes industrial companies situated in Germany. We focus on one business section (industry) only, because the state of IT-security in companies depends on the business section the companies are acting in. The focus on only one country is taken, because public opinion and law influence the awareness of IT-security and the measures used. The study does not only survey the awareness of security problems but also the counter measures the companies' management uses to reduce the risk. In this paper we specially focus on those counter measures which are interesting for electronic commerce. Therefore, we will present the companies' management's opinion on the use of the Internet, data classification, data encryption, and the opinion on the security and practicability of digital signatures.
2001	13th Bled eCommerce Conference	A Strategic Approach to the Development of an Infrastructure for Small and Medium-sized E-business	Emmanuel Tetteh, Dr Janice Burn, Tetteh, E and Burn, J.	The world wide web (WWW) offers exciting new opportunities for small and medium sized enterprises (SMEs) to extend their customer base into the global marketplace. However, in order to exploit these advantages in a global strategy, the SME needs to adopt an entirely different approach to management which can enable it to deploy an extensive infrastructure network based on shared resources with other firms. This paper presents a framework for the analysis and design of global information infrastructures within the organisational context of SMEs using Internet-based information technologies. Central to the framework is the transformation of the key attributes of an SME environment through a virtual organising perspective. The framework is supported by a number of Australian case examples of SMEs operating in a global context. It provides a new perspective to strategic infrastructure management in SMEs and to electronic business research.
2001	13th Bled eCommerce Conference	Fuzzy Logic Model of Consumers as Internet Industry Investors	Jozef Zurada and Al F. Salam	This paper is one of the earliest attempts at developing a theoretical model that may shed some insight into the incredible stock performance of Internet companies. The model is based not on business fundamentals but on the theory of investor psychology in the context of electronic commerce. The authors suggest that the consumers' investments in Internet industry may be explained by two psychological factors: the investors' overconfidence and their biased self-attribution both influenced by public and private information available to the investors about the performance of Internet companies. In addition, the authors propose an initial conceptual fuzzy logic model that may allow one to predict the level of the consumers' investments based on the above factors.



2001	13th Bled eCommerce Conference	Electronic Commerce Careers: a Preliminary Survey of the Online Marketplace	Elsie S. K. Chan, Paula M. C. Swatman	Electronic Commerce (E-Commerce or, increasingly, E-Business) has shown dramatic growth since the commercialisation of the Internet and the creation of the World Wide Web in the early to mid 1990's. Only a few years ago not many universities offered E-Commerce subjects - either as undergraduate/post-graduate degrees or even in the form of single subjects. But over the past four years, as E-Commerce continues to gain popularity in the market-place, many universities have started to offer E-Commerce degrees at both undergraduate and masters levels. This raises the issue of what sort of jobs an E-Commerce graduate can expect to find. Naturally, young graduates trained in this field will be anticipating interesting, dynamic, challenging and well-paid careers but, until recently, most "E-Commerce" positions have tended to be re-badged IT jobs. This paper provides an analysis of the E-Commerce/E-Business jobs market-place - offering graduates an opportunity to understand what they can realistically expect to find waiting for them. Data were gathered from the web sites of online recruiters and, given the preliminary nature of this paper, analysed descriptively to provide a snapshot of the current E-Commerce job scene and to see how an E-Commerce/E-Business career compares with the "traditional" Information Technology jobs market.
2001	13th Bled eCommerce Conference	XML vs. UN/EDIFACT or Flexibility vs. Standardisation	Christian Huemer	XML, the eXtensible Markup Language, has become the standard for defining data interchange formats in Internet applications. Therefore, it is currently one of the most popular topics in the area of Electronic Commerce. The XML-hype also enters the field of electronic data interchange (EDI). In the past decades EDI standards, like UN/EDIFACT or ANSI X12 have been the dominant ways of interchanging data between applications. These traditional standards are successfully used by the Fortune 1000 companies, but were not commonly accepted by most of the SMEs. Owing to its flexibility, XML is expected to close this gap. But there is a huge uncertainty among companies. Some are concerned that XML is a threat to their current EDI applications. Others are making technically naive and overly optimistic statements on how XML will replace current EDI standards. Both expectations are not entirely true. In this paper we describe the strengths as well as the limitations of using XML in EDI. By comparing XML with current EDI standard technology, we show where XML still has to learn from EDI standardisation.
2001	13th Bled eCommerce Conference	Key Design Issues in Marketplaces for Intellectual Property Rights	Roger Clarke, Peter L. Higgs, Gillian Dempsey	Intellectual property rights are actively traded. Because rights such as copyright and trademarks can be so readily expressed in digital form, markets for them can in principle be well-supported by electronic tools. An examination of the design considerations for such marketplaces identifies many challenges, and vital public policy issues. Great care is needed in the design of I.P. rights markets. Modularity, open architectures and open standards are vital. Close attention must be paid to the needs of key participants and other stakeholders, and to commercial and cultural aspects of existing marketplaces.
2001	13th Bled eCommerce Conference	Inhibitors to Electronic Commerce in Singapore Insights Below the Surface	Roger Debreceeny, Martin Putterill, Lee Gilbert, Tung Lai-Lai	Singapore has shown the ability to build a prosperous economy with significant roots in IT and related technologies. The Government is moving purposefully to position the country to take advantage of Electronic Commerce. At the same time a recent large-scale survey shows that firms have not demonstrated interest or investment at a level commensurate with Government's policy settings. This research taps the experience, concerns and knowledge of senior management of firms and institutions considered to be important to the development of EC in Singapore. In a series of phased inquiries at the level of the firm, these participants made group rankings and analyzed a range of inhibitors to adopting EC. Five substantive inhibitors were identified to provide a frame for the enquiry. An analysis of the participants' opinions on the constituents of the substantive inhibitors, defined as "Pilot Classification Elements" (PCEs), showed that at the firm level there is likely to be a process that is separate but linked to Government actions. This process is dynamic and complex in character and shows distinct temporal characteristics. The study also shown the Kraemer-Dedrick Model (KDM) of IT innovation is an appropriate theoretical starting point of a more complete model of Electronic Commerce adoption.
2001	13th Bled eCommerce Conference	A study on consumer fears and trust in internet based electronic commerce	Vivienne Farrell, Ying Leung, Graham Farrell	The lack of faith between businesses and consumers has been cited as one of the major obstacles in the uptake of e-commerce. The fears of e-commerce come mainly from the media, which exploit the fact that the public, in general have a fear of the unknown. The Internet is often perceived as a black hole where everything is sent and then thrown out the other side. The aim of this paper is to find out what pre-conceived ideas consumers have regarding the usage of electronic commerce and whether consumers are open to electronic commerce as a viable method of business. This study finds that e-commerce is not a preferred method of transacting business because of security concerns and consumers are not aware of security measures that should be established by business. This paper recommends that, in order to remove their fears of the unknown, industry undertake an education process for consumers, which would include an awareness of the methods used to avoid e-fraud.

2001	13th Bled eCommerce Conference	Emerging Networks in Automotive Retailing	Stefan Baldi, Hans P. Borgman	The Internet is changing traditional channels of automotive sales and distribution dramatically. New players enter and existing structures and roles change, leaving traditional players struggling to decide which strategy to pursue. In this paper we will examine these fundamental changes, building on and extending the concepts of dynamic networks originally developed by Miles and Snow [Miles 86, Snow 92]. We demonstrate the usefulness of the Miles and Snow framework for understanding the ongoing changes in the automobile industry and apply the model to explore possible future scenarios for the various players in the industry. In addition we investigate some limitations of the dynamic network concepts in the case of blurring industry boundaries, and propose additional perspectives to foster a better understanding of emerging industry structures.
2001	13th Bled eCommerce Conference	THE IMPACT OF PERCEIVED WEBSITE CHARACTERISTICS ON WEBSITE TRAFFIC	Hans van der Heijden	Attracting traffic to corporate websites is a topic of increasing practical concern. There is empirical evidence available that the frequency and duration of visits is partly influenced by characteristics of the website. However, little research has been carried out to examine the impact of website characteristics on website usage. In this paper we develop a theoretical model to assess the relationship between perceived characteristics of a website and the actual website traffic in terms of frequency and duration of revisits. Our model takes the widely utilised Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA) and applies these theories to the website context. Furthermore, we argue both theoretically and using empirical evidence that two additional constructs have an impact on website traffic: perceived attractiveness and perceived interactivity. This paper develops the overall model by defining the constructs, hypotheses and possible control variables. We discuss the limitations, the contributions and the implications of the model. We also include a sample survey to test the theory.
2001	13th Bled eCommerce Conference	Information and interaction quality: evaluating Internet bookshop web sites with WebQual	Stuart J. Barnes, Richard Vidgen	This paper reports the evaluation of Internet bookshop web sites using the WebQual 2.0 instrument. From initial application in the domain of information-intensive web sites, the instrument has been extended and refined to encompass the interaction and service quality dimensions associated with e-commerce web sites. The development of WebQual 2.0 draws on an analysis of the service quality literature. The WebQual approach is to assess the web-site quality from the perspective of the 'voice of the customer', an approach adopted in quality function deployment. The instrument is used to assess customer perceptions in one of the more mature areas of Internet commerce - online bookshops. The qualities of three UK-based Internet bookshops are assessed using a natural experiment. Data is collected from students using an online questionnaire. The results are reported and analysed and demonstrate considerable variations in the offerings of the web sites. The findings and their implications for e-commerce are discussed and some conclusions and directions for further research are provided.
2001	13th Bled eCommerce Conference	The World Wide Web: Saviour of Small Firms?	William Golden, Michael Griffin	The arrival of the World Wide Web was presented as a means through which small firms could extend their geographic reach at minimal cost. Through such means it was argued that micro-sized firms could compete effectively against large firms as the Web was believed to be "an equal opportunity displayer." This paper investigates the extent to which small firms in the Republic of Ireland have achieved success through using Web pages. Based on a postal survey, the paper concludes that in general small firms are happy with their investment in Web pages. Further, the more successful firms are organisations that make a commitment both in terms of planning and resources.
2001	13th Bled eCommerce Conference	Sensitivity of e-commerce measurement to survey instrument	Vasja Vehovar, Katja Lozar Manfreda, Zenel Batagelj	E-commerce is increasingly being measured not only with the use of computer-to-computer techniques and standard economic/financial indicators, but also with surveys. Namely, not only factual and "hard statistical" data, but also attitudes and intentions are important as the phenomena of information society are arising and disappearing relatively quickly. This paper is focused on survey measurement of e-commerce activities of SMEs using different survey modes: telephone, mail, fax and Web. We are especially interested whether Web surveys can become an alternative to more expensive, however already proved to be valid telephone or mail data collection.

2001	13th Bled eCommerce Conference	Virtual Store Atmosphere in Internet Retailing	Adam P. Vrechopoulos 1,2, Robert M. O'Keefe <sup>1</sup> , Georgios I. Doukidis <sup>1,2</sup>	This paper reviews the crucial role of the shopping environment in virtual. It presents the factors which constitute conventional retail stores atmosphere and some indicative conventional store atmosphere studies. Then, Human Computer Interaction principles and studies towards effective Web store design are presented. A corresponding framework of the conventional retail store atmosphere determinants to the respective determinants of the virtual shopping environment follows. The term "virtual store atmosphere" is introduced along with the identification of the corresponding determinants governing the formation of virtual store atmosphere. Particular emphasis is given on the store layout and design issue as a major influencing factor of the consumer buying process. In addition, a comprehensive model for the development and test of a Web-shopping environment along with a multiattribute model for the evaluation of the virtual store atmosphere are introduced. Finally, a brief guide of future research perspectives and managerial implications for virtual retailers is provided.
2001	13th Bled eCommerce Conference	Using stakeholder salience theory to facilitate management of stakeholder requirements in business-to-consumer web information systems	Michael S Lane, Andy Koronios	The emergence of web information systems as the dominant information system over the next decade has exposed shortcomings in existing information systems development approaches. The requirements analysis phase poses special problems for the development of Web information systems given the diversity of stakeholders involved in these systems and the evolving nature of Web technologies. The use of stakeholder theory in information systems development approaches in past has been tended to be superficial and descriptive. Use of stakeholder salience theory can assist in the stakeholder analysis of a business-to-consumer web information system by identifying and prioritising stakeholders. This approach will facilitate the management of potentially conflicting requirements given the diversity of stakeholders in business-to-consumer web information systems
2001	13th Bled eCommerce Conference	Managing Online Informational Privacy: The design and evaluation of a P3P test bed	Ramayya Krishnan, Rema Padman, Uday Rajan, Danny Fernandes	The ease of collecting, collating and cross linking data using Web technologies has enabled mass customization, targeted advertising and one on one marketing. A competing tension is the need to protect individual privacy. In an effort to provide consumers with control over their personal information, the W3C (world wide web consortium) has developed a specification for a technology infrastructure called P3P (platform for privacy preferences) that will become available in the next generation of web browsers and servers. Under P3P, a user software agent and a server software agent exchange, process and arrive at agreements on the nature of the information that will be collected by the server and its eventual use. Given the broad support and acceptance of P3P, it provides a framework within which several issues can be investigated. To facilitate this research, we have implemented a computational test bed to evaluate and extend P3P. In this paper we describe the architecture of our implementation, provide an overview of a game theory-based approach to extending the current P3P specification and present results of a preliminary user study designed to assess user acceptance of the P3P concept.
2001	13th Bled eCommerce Conference	On Brokering Information Services	Atip Asavanund, Hemant Bhargava, Ramayya Krishnan	The ubiquitous availability of a TCP/IP-based infrastructure offered by the Internet has enabled distributed and uniform access to information services. When these information services are composable such that the output of one service can be made the input of another, users can leverage this type of access to script the execution of a distributed collection of resources. This capability has broad application in several domains where computational model-based support is integral to the performance of tasks (e.g., logistics planning, distributed engineering design, travel planning). This is becoming increasingly important as is evidenced by the recent growth in e-services. In this paper, we present our work on a meta data-based approach to brokering information services with a focus on supporting both manual and automated scripting of a of the information services. We provide an overview of the formal underpinnings of the approach and discuss its realization within an XML-based implementation. The principal advantage of our approach is the ability of users to work with a distributed virtual repository of information services in a transparent manner.
2001	13th Bled eCommerce Conference	The role of the 'honest broker' in the development of interorganizational systems: A case study in the beef industry	Shirley Gregor, Don Menzies	The question that motivated the paper is how a facilitatory body or 'honest broker' can assist in the development of interorganizational systems (IOS). There is some evidence of the need for such bodies but little detail in the literature of the role that they play. A case study of the development of supply chain management in the Australian beef industry is used to explore the problem. The case study suggests that attributes of a change agent, identified in Rogers' Diffusion Theory, remain important in the IOS context. The increased complexity in the IOS context, however, requires rethinking of some aspects of the change agent's role. In addition, there is seen to be a need for negotiation and trust-building, promotion of industry standards, maintenance of a position of neutrality, and possibly the allocation of funds at opportune times.

2001	13th Bled eCommerce Conference	Beyond e-commerce: an entrepreneurial business modelling method for profitable e-venturing.	Kevin Hindle, Peter Dulmanis	E- business is used as a term that embraces e-commerce, its commercial exchange or transaction component. Both are subsets of a larger concept, e-venturing. E-business is a major disruptive innovation that is rapidly changing many of the accepted norms of effective management. So the paper revisits and reassesses several established principles of economics, strategy and entrepreneurship to place them in the context of the forces driving the emerging e-business economy. Entrepreneurship is applied as a 'framework enricher', model-building tool and critical organisational behaviour to guide integration of e-business strategy into the total organisational strategy of a profit-seeking firm. This permits development of a new business modelling process, labelled 'map and locate', that adapts a combination of entrepreneurial and strategic imperatives to the internet environment. The process assumes that value-generation, competitive distinction and profitability are the three essentials of any successful e-business strategy design and execution. Apart from its general conceptual role of linking strategic and entrepreneurial thinking, the 'map and locate' modelling process can be used as a practical tool for specific performance in a variety of circumstances. It focuses on learning and the development of metrics useful for measuring progress towards achievement of target outcomes.
2001	13th Bled eCommerce Conference	Understanding the Adoption of ECR: A Broader Perspective	Sherah Kurnia, Robert B. Johnston	In order to sustain competitiveness, companies need to adopt electronic commerce-enabled inter-organisational systems to improve the efficiencies of the entire supply chain. Adoption of inter-organisational systems by companies, however, has proved to be difficult, since such systems span organisational boundaries. Understanding this lack of success is hampered by the lack of sound theoretical analysis of inter-organisational systems adoption. In this study, which uses Efficient Consumer Response (ECR) as an example, we describe and contrast two different approaches to modeling adoption. The first relates ECR characteristics, organisation characteristics, and certain external driving forces to ECR adoption, and is a familiar factors-type model. Then, recognition of the importance of the inter-organisational context of ECR adoption leads to a reconsideration of the causal links in this model and to the formulation of a new model of the processual kind. Case studies of ECR adoption in Australia are presented to demonstrate that the revised model captures more of the complexity of ECR adoption experiences and outcomes.
2001	13th Bled eCommerce Conference	Online Audit Review System for Electronic Commerce	Keith Wong, Brenda Ng, Narciso Cerpa, Rodger Jamieson	The FBI indicates that by 2005, Internet based fraud may be the largest type of white-collar crime [6]. In this paper, we present research on the design and development of an audit software prototype for detecting frauds and irregularities in electronic commerce transactions. These transactions are vulnerable to fraud since they are initiated remotely and it is quite difficult to verify the legitimacy of customers. The detection software provides auditors and IS management with online warnings as well as information upon request from a database of audited irregularities. The software provides a graphical user interface for the auditors to enter the criteria or set of rules for detecting and collecting the database of irregularities. This flexible rule-based approach is highly desirable in software of this nature since different e-commerce set ups could have distinct monitoring requirements.
2001	13th Bled eCommerce Conference	Maximizing the benefits of Data Interchange across the supply chain	Luís Henrique Gomes Pires Pereira Nina	The emergence and growth of the large surfaces as the new types of retail formats like the "Hard discounts", tied to the modification of consumers purchase habits have transformed the market of the distribution in the middle of the nineties in Portugal. The previously domain of the small grocery stores passed to the multinational and well organized retail companies. Being UNIARME the biggest purchase central of cash & carry and wholesalers in Portugal and seeing the business of your principal customers in accelerated decline, it took the board to react, coming to a decision of hiring a computer and logistics manager to reengineer the business processes and narrowing the bounds of the companies involved in that distribution channel. Some doubts have emerged: How could hundreds of independent parties share common procedures and information to act like one big company? And could it be done before losing the entire negotiation power and market share? With this paper we intend to share our experience in developing and expanding our e business projects to our business partners in our country.
2001	13th Bled eCommerce Conference	Internet usage by SME's: A UK perspective	Japhet Eke Lawrence, Jim Hughes	The contribution of small to medium-sized enterprises (SMEs) is extremely important to the economy of many countries and their contribution cannot be over emphasised. SMEs account for more than 50% of private sector employment in the UK and currently are contributing most of the private sector employment growth. Information technology, particularly the Internet, has the potential to radically change the way business is conducted, offering a competitive edge and a gateway to the global marketplace. Although much has been claimed about the potential benefits of the use of the Internet in businesses there appears to be little evidence at present to indicate the actual level of usage in SMEs. In order to address this, the paper presents the preliminary results from a survey of UK SMEs between March and June 1999. The survey gives a current picture of how SMEs are using the Internet and its technology, including the benefits, the issues and the impact of use on business activities.

2001	13th Bled eCommerce Conference	Interactive Advertisement in Internet Retail Environments: An Auction-Based Mechanism for Banner Booking	Katherine C. Pramataris, Dimitris Papakiriakopoulos, George Lekakos, Georgios I. Doukidis	With the exception of interactive television, the Web is probably the only such medium that allows the user to get actively involved in responding to a vendor's promotional campaign. This feature of interactivity changes the usual course of broadcast advertising and enables a two-way communication between vendor and customer/consumer. In electronic retail environments interactive advertisement receives even higher credit, as it has the power to provoke a purchasing behavior by the user. This fact, paired with the great number of products wishing to be advertised, may well lead to increased demand for advertisement and, more specifically, banner space, especially in the most popular electronic retail sites. The question then for the e-store owner or e-tailer is how to best price these ad-positions and whether booking price offerings should be the mere criterion to guide ad-space allocation decisions. In such cases it may well be that an open auction mechanism sets the most appropriate price levels and resolves any conflicts owed to increased online-advertisement demand. In addition such a mechanism should incorporate more criterions to support decisions, other than booking price alone, in order to meet the specific requirements and characteristics of on-line retailing. In this paper we describe such a web-based auction mechanism, supporting the banner booking process in an electronic retail site. The architecture of the system implementing the proposed mechanism and extensions to it are also discussed.
2001	13th Bled eCommerce Conference	Branch-less and Internet Banking: The Advance Bank in Germany	13th International Bled Electronic Commerce Conference Bled, Slovenia, June 19-21, 2000	Walking through the bank's call center in Munich on March 28, 1998, the two-year anniversary day of the bank, Volker Visser was wondering what suggestions he could make to the other members of the Executive Board of Advance Bank at their next business strategy meeting. As he observed some agents answering customer calls, he wondered how to better manage customer relationships and whether new technological capabilities could be effectively used to create value in an electronic world. He knew that with the intensifying competition in the branch-less banking sector, 'his' direct bank needed to further customize the financial advice it offered, especially if it wanted to achieve its goal of 250,000 customers by the year 2001... While recognizing the tasks that lay ahead in order to achieve that goal, he thought that the uniqueness of the Advance Bank concept would still be a strong competitive weapon in the market place: "Marketing and winning over customers who fit our target profile is our key challenge. We are not afraid of current competitors or new entrants because we believe that we have a niche and a differentiated quality service... Brick-and-mortar [bank] branches don't have a future. Why should the customer keep paying for their fancy branches in prime locations and for their large staff payroll, while dealing with restricted opening hours and lousy service quality?"
2001	13th Bled eCommerce Conference	A Customization Approach for Structured Products in Electronic Shops	Armin Stahl, Ralph Bergmann, Sascha Schmitt	Customers of electronic shops find more and more support for the search and selection of products in the sales systems. Unfortunately, most of the shops do not provide additional support with parameterizable or configurable products. Such products could be further customized. One of the major problems most customization techniques suffer from is that they require large knowledge acquisition effort, which leads to problems in the rapidly changing e-Commerce scenario. In this paper, we present a new approach to customization that is particularly suited to e-Commerce applications. It assumes that products can be structured hierarchically into sub-components. Customization is achieved by incrementally replacing unsuitable sub-components through recursively finding best-matching alternative sub-components, using Case-Based Reasoning technology for this search process. The presented approach avoids huge portions of the knowledge acquisition effort. The approach is implemented as a prototypical system.
2001	13th Bled eCommerce Conference	Death of the intermediary?' - Strategies for insurance business in the Internet Era	Hans J. Oppelland, Roelant Prins	The growth of Internet or electronic business has a far-reaching impact on a number of business areas. Established enterprises have greatest difficulties to make appropriate decision regarding the Internet era and are surrounded by uncertainties related to the future of their business area. One of the business areas where this certainly is true is the insurance business. The development of 'electronic business' or Internet business seems to turn the traditional structure of and relationships between insurance companies and their intermediaries upside-down. In this paper we describe this problem using results from an empirical survey about the Internet strategies of insurance companies in the Netherlands. We analyze and evaluate business strategies of direct writing insurance companies as well as inter-mediary insurance companies, which distribute their products using intermediaries as distribution channel. We present the perceptions of interviewees about insurance Internet business strategies as well as barriers in implementing them.

2001	13th Bled eCommerce Conference	Networked Learning as Electronic Commerce: Cultural Change in a Faculty	Doug Vogel, Johanna Klassen	The traditional cultures of universities are challenged by networked learning environments which produce new forms of working and interacting as students, teachers, and administrators take on new roles and responsibilities. A case study of the iMBA of the Faculty of Business, City University of Hong Kong, is analyzed to see how the management, teaching and learning culture has been affected. Attributes of electronic commerce introduction and adoption are drawn upon to explain and predict emergent cultural change in faculty involved in networked learning.
2001	13th Bled eCommerce Conference	A Network-Based Leverage Strategy for Small Medical Practices: A Case Study	Simpson Poon, Daniel May	Although many medical information technologies require significant financial investment and is often out of reach of small medical practices, it is possible through careful alignment of IT and customer strategy, together with a network of strategic alliances to exploit IT effectively. In this paper, we present a case study of a small cardiology consultancy that has engaged in strategic planning in its attempt to leverage IT expertise to attain competitive advantage. We propose that through a network of alliances, a relatively small medical enterprise can benefit from its limited IT investment. The case study indicates the importance of a team of champions with both IT and medical knowledge and the notion of mutual benefit.
2001	13th Bled eCommerce Conference	Advantages and Drawbacks of on-line Sales Channel Utilization	Janusz Wielki	The paper discusses a problem of utilization by companies the Internet as a sales channel. In its first part, the most significant benefits of this channel exploitation are presented and analyzed. The second part of the paper is focused on drawbacks related to it. Both parts are illustrated with numerous examples. Finally conclusions are provided.
2001	13th Bled eCommerce Conference	Evaluating the adoption of the Internet: A study of an Australian experience in Local Government	Boon, O., Hewett, W. G., Parker, C.M.	The Internet, including the World Wide Web and electronic commerce, is transforming the nature of economies and communities globally. The fundamentals of these changes are impacting on industry, communities and governments alike. Governments in many western nations are under pressure to develop and implement strategic policies encompassing the potential of the Internet opportunities. This pursuit of the Internet as a new medium of communications is filtering down through all levels of government. Local governments are beginning to use the Internet as a new tool for the dissemination of information and delivery of services to the communities they represent. The effectiveness of the Internet as a tool for dissemination of information and delivery of services into local communities by local governments has yet to be evaluated. This paper applies a recent model for evaluating the application of the Internet as a medium for dissemination of information and delivery of services by local government in Australia. It examines the use of the Internet by local governments in Australia and classifies the level of Internet adoption across these local governments. One unexpected outcome from the work undertaken was the realisation that the chosen model did not fully represent the observed spread of adoption. A modified model was therefore developed to allow for a more graduated continuum.
2001	13th Bled eCommerce Conference	Electronic Commerce as innovation - a framework for interpretive analysis	Linda Wilkins, Paula Swatman, Tanya Castleman	Studies of the diffusion of innovation have covered a wide range of industry sectors and information system types over recent years. In the study of how innovations are implemented in firms there has been a notable shift in focus. Interest has shifted to organisational rather than purely technical issues. This is particularly the case with the take-up of Electronic Commerce - a configurational technology that stimulates process innovation. By applying theoretical perspectives from other disciplines and methodologies, as researchers, we were able to widen the scope of our enquiry and pool the lessons we derived from these wider perspectives. Following from this broader theoretical perspective, we present a rationale for reviewing themes in the literature of diffusion and organisational literature. Our review showed that the linear, or stage, model was still current in much of the literature and that factor research maintained its popularity as a methodology in the reference disciplines for Electronic Commerce. However we critique those approaches which present innovation as an entity with prescribed stages and question their applicability to an open-ended, customisable and unprecedented innovation such as Electronic Commerce. Finally, we suggest that organisational literature applied to Electronic Commerce implementation studies can contribute to a better understanding of complex innovation 'episodes' as they emerge and unfold over time.

2001	13th Bled eCommerce Conference	A Collaborative Approach to Implementing an Extranet in the Retail Environment: A Case Study	Bob Roberts, Glyn Thomas	The potential business benefits of implementing EDI for increased efficiency and effectiveness is well understood. However, the difficulties of demonstrating the benefits to small suppliers as well as the IT challenges that such approaches have demanded from them have tended to inhibit the diffusion of EDI. This case study examines a collaborative and industry sector based approach to implementing an extranet to support the supply chain of a large retailer. A number of different approaches were applied to understand the stakeholder requirements, to optimise the information flows and to realise the potential for redesigning business processes. The paper concludes with a review of the methods for analysing e-commerce implementations from a technology, business process and organisational perspective.
2001	13th Bled eCommerce Conference	SMEs and the Internet On the Strategic Drivers Influencing the Use of the Internet in SMEs	Prof. Dr. Ir. Dirk Deschoolmeester, Jan Van Hee	The Internet is altering the ways in which businesses operate and interact with customers, suppliers and partners. Rapid implementation of electronic commerce to obtain competitive advantage presents an urgent challenge. Large European companies are attempting to close the gap with the United States and its booming "New Economy". Especially for small and medium-sized businesses (SMEs), the Internet promises to hold great potential, but so far many have adopted a "wait and see" attitude. This paper discusses the results of an electronic commerce awareness survey in Belgium. Complementary interviews were conducted with early adopters and users of electronic commerce, on the assumption that these companies engage in electronic commerce activities on the basis of a number of strategic drivers. A general strategic framework to consider e-commerce investments was tested and is presented in this paper.
2001	13th Bled eCommerce Conference	Identifying a Usability Evaluation Technique by following an SME centred Approach	Konsatntina Vassilopoulou, Kathy Keeling, Linda A. Macaulay, Peter McGoldrick	There are many challenges faced by Small and Medium Enterprises (SMEs) in delivering usable and useful web sites. This paper describes our ongoing efforts to incorporate usability theory within the web site evaluation process by following an SME centred approach. To achieve that a qualitative survey was conducted to determine the barriers faced by SMEs when designing Web sites and the issues they consider during the evaluation process. This leads to the development of a questionnaire based usability technique for Web site evaluation. The resulting questionnaire is then tested with a real Web site and users, the results are statistically analysed and a refined, shorter version produced. This new Web site usability evaluation technique allows the we
2001	13th Bled eCommerce Conference	Potential and failures of local "institutional" organisations in the development of Electronic Commerce	Enrico Scarso, Ettore Bolisani	The paper investigates the role of a particular kind of local institutional organisations (i.e.: trade and professional associations, local public-private mixed agencies, etc.) in facilitating the adoption of Internet Electronic Commerce (IEC) by small and medium enterprises. After examining the main barriers that hinder a widespread utilisation of IEC, the potential role that such agents can play is described. The Italian experience is then analysed through some case-studies of IEC projects. The cases show that the promotion of IEC requires highly targeted competencies that are not generally available in local organisations, and this may cause the failure of the activities promoted.
2001	13th Bled eCommerce Conference	Issues Affecting the Implementation of Multi-function Smart Card Systems	Danielle Fowler, Paula M.C. Swatman, Janaka Welikala	This paper describes the results of a study into the use of multi-function smart cards in the university environment, an area in which they have been widely deployed and comparatively successful. Traditionally, smart cards have tended to handle one application, rather than being linked to a number of applications. The variety of facilities and services available on a university campus which can be placed on a smart card, however (for example, student identification, an electronic purse, library access, parking, access to student records), have made it a promising arena in which to introduce integrated systems (and hence to investigate the process of integration of these functions). The paper describes results from a Delphi study conducted in 1998 of universities and solution providers, which sought to determine issues affecting the success of smart card implementations on university campuses. The university implementors' success factors spanned procedural, technical and social issues, while the solution providers' views were focused on project management structures and the amount of involvement and planning the vendors had in the system implementations. The universities' failure factors were technical difficulties and students' perceived loss of privacy; the solution providers believed changes to equipment during implementation, inadequate site preparation and the card issue process were the 3 most important failure factors. The paper concludes with recommendations for adoptors.

2001	13th Bled eCommerce Conference	Access versus Content: Emancipation in the Web Era?	Claudia Loebbecke, Stefan Schaefer	'Access' versus 'Content' and the ever-lasting question 'Who is king and who is queen?' has been an on-going topic in the debate about profitable business models for electronic commerce facilitation and electronic content provision. This paper shows how 'NetCologne', a medium size private telecommunication and Internet service provider on the liberalized German telecommunication market, has prevailed against established competitors and gained a leading position as regional player. Having set up its own subscriber network of about 40,000 'fibre-kilometres' within the city of Cologne, the company has developed its business model following the traditional core competence of telecommunication operators, i.e. access provision and basic value-adding functionalities. Only recently NetCologne has started to adjust its business model on also facilitating content provision and electronic commerce. In this context, the paper discusses conceptual and actual opportunities and obstacles for access providers to remain successful in the new era of electronic commerce and electronic content provision.
2001	13th Bled eCommerce Conference	Capturing the electronic commerce advantage: The Western Victorian approach	Helen Thompson	The growth and expansion of the Internet and its acceptance as a medium of business has generated significant changes in business practice. While the information age offers tremendous opportunities to enhance regional competitiveness, a failure to exploit new information and communications technologies may erode current competitive advantage. The objective of this paper is to give an overview of initiatives currently being undertaken in Western Victoria, Australia to coordinate and advance electronic commerce. The innovative model being implemented has been developed to facilitate and sustain regional growth. The Chamber of Electronic Commerce - Western Victoria (Chamber) will advance electronic commerce by facilitating new business initiatives and by promoting networking, leadership and coordination. MainStreet.au, a regional Internet portal, will provide business and community participants with broader service delivery capabilities and an enhanced entry to the global Internet marketplace. The coordinated strategy ensures that regional businesses can access assistance, secure the tools and identify the processes and practices which need to be adopted to ensure they can implement sustainable electronic commerce operations.
2001	13th Bled eCommerce Conference	Towards a framework for evaluation of commercial Web sites	Stephen Ross Elliot, Anders Schreiner M?rup-Petersen, Niels Bj?rn-Andersen	The paper seeks to address industry uncertainties and consumer concerns with commercial Internet sites by developing a framework identifying factors and facilities for business-to-consumer web-sites. Based on a literature review of consumer adoption on on-line retailing and more specifically, on a literature review of web-site evaluations. A framework with 6 categories each consisting of 5 elements is furthermore defined. This framework has been applied in an assessment of web-sites of 100 companies. None of these are 'pure players'. They all have roots in the industrial age and not in the digital age. The framework is presented in the paper, and the results of the assessment are reported.
2001	13th Bled eCommerce Conference	Mobile Electronic Commerce: Reintermediation in the Payment System	J. Felix Hampe, Paula M.C. Swatman, Paul A. Swatman	Rapid advances in electronic commerce and services have opened up new opportunities for businesses and organisations over the last decade. The fusion of Internet technology and applications with wireless communication marks an important further stage of progress. Applications based on mobile telecommunication infrastructure generate new models for corporate communications, both internally and externally, providing a new channel for marketing and sales. This paper summarises the current state of enabling technology for mobile telecommunications and offers an overview of applications for mobile electronic commerce. We look at the ways in which mobile phone service providers can enhance existing offerings to provide nomadic access to a wide range of applications and we consider the possibility that mobile phone companies might re-invent themselves
2001	13th Bled eCommerce Conference	The Role of Government in Internet Commerce: Views from the Fields	Tanya Castleman, Paul A. Swatman, Paula M.C. Swatman	The Australian Government has introduced, through the National Office of the Information Economy, a number of initiatives to foster Internet commerce nationally and, particularly through its Networking-the-Nation program, to create economic opportunities in the rural and regional areas of the country. It is important to those regions themselves and to the nation as a whole that rural areas return to economic sustainability. This paper reports the findings from a recent study of 46 organisations which use Internet commerce, of which 11 are based in regional Australia. While the perspective of rural-regional enterprises does not significantly differ from that of their metropolitan counterparts, they face some additional problems of access to resources and support. Their experiences of using Internet commerce and their perceptions of the appropriate role of government in stimulating and regulating Internet commerce suggest ways in which Government strategy for regional sustainability via Internet commerce should be refined.



2001	13th Bled eCommerce Conference	E-Commerce as a Stimulus for e-Government	Traunmüller Roland, Lenk Klaus	E-Government is a powerful guiding vision for the transformation which governments and public administrations have to undergo in the next decades. The striking success of e-Commerce provides high momentum. Yet transferring concepts, methods and systems to the public sector needs careful deliberation. The relations between e-Government and e-Commerce are reflected. Then, e-Government is discussed under four prime perspectives: improving the communication with the citizens, reengineering administrative processes, relying on telecooperation, and knowledge management.
2001	13th Bled eCommerce Conference	A Prototype of an EDI User Agent over Internet	Hella Kaffel Ben Ayed, Lamia Ben Azzouz, Farouk Kamoun	In a business to business context, Electronic commerce is called Electronic Data Interchange (EDI) and it is the computer to computer exchange of business documents between big enterprises called leaders. The earliest deployments of EDI were based upon Value Added Networks (VANs) using X400 messaging systems. Actually, Internet is being explored to be a support medium for EDI. Internet electronic mail (email) is a well adapted medium for asynchronous EDI communications. Hence, the IETF (Internet Engineering Task Force) EDIINT w.g. has focused its work on exploiting email for exchanging EDI documents. In our work, we have been interested by a comparison between the IETF approach and the OSI EDI messaging (X435) to emphasize the EDI suitable services, such as EDI security and notifications, multiple EDI recipient and cross referencing, provided by the X435 approach and missing in the IETF approach. In this paper, we will propose and describe the design and the implementation of an Internet EDI messaging system inspired from the X435 messaging.
2001	13th Bled eCommerce Conference	Developing eCommerce within Business Networks - The Case of ETA SA	Thirteenth International Bled Electronic Commerce Conference Bled, Slovenia	In a growing number of industries shaping relationships among business partners is a critical determinant for competitiveness. Companies, such as Amazon, Dell or eToys, are known for their direct sales model. While these companies have started from scratch, most companies start within existing business networks. Redesigning relationships or business network redesign becomes an important activity when implementing eCommerce within industries with structures in place. An eCommerce project conducted at ETA SA, a member of 'The Swatch Group', shows how the traditional business has been extended, how relationships to partners have changed and what future potentials have been created with eCommerce. The project distinguishes two phases and presents an integrated approach of eCommerce and Business Network Redesign to increase customer service and delivery time speed and to decrease costs.
2001	13th Bled eCommerce Conference	The Transformation of Pricing Models on the Web: Examples from the Air-line Industry	Stefan Klein, Claudia Loebbecke	The advent of the digital economy and the increasingly important role of various types of electronic market places provide unprecedented opportunity for suppliers of products and services to experiment with new pricing mechanisms and subsequent pricing models. Economic appropriateness, technical feasibility, and purposes of such pricing mechanisms depend mainly on product characteristics, customer groups, sales volume, and eventually the role of the three most important actors, 'suppliers', 'intermediaries', and 'consumers'. New information technologies not only enable businesses to charge flexible prices on the Internet, but also allow for new price setting mechanisms in which consumers specify their interests and requirements. This paper provides some conceptual background for developing net-based pricing models and reflects first empirical evidences against it.
2002	15th Bled eCommerce Conference	SME eBusiness Readiness in Five Eastern European Countries: Results of a Survey	Jim R. Oliver, Panagiotis Damaskopoulos	We report initial findings from a survey conducted to determine the state of ebusiness readiness by SMEs in five Eastern European countries. The work is part of the EU-sponsored project ENLARGE. A questionnaire was administered in late 2001 to over 900 executives and managers from SMEs in Poland, Slovenia, Romania, Bulgaria, and Cyprus. The survey looked at e-business readiness by exploring three levels of analysis: the company and organizational level, the market and industry level, and the national and regulatory level. Initial results from this rich and recent dataset suggest a fairly strong adoption of basic technical infrastructure, such as PCs, Internet access, and company Web site. Exploitation of these technologies is more limited and varies across the different countries. At the market and industry level, most company Web sites are used primarily for informational purposes and tight electronic linkages to customers or suppliers is not extensive. Finally, at the national and regulatory level, respondents believe that there is little support from their regional and national governments, and that more maturity is needed in the technical, business, and social infrastructure.
2002	15th Bled eCommerce Conference	Emerging Industrial eMarkets: The Case of Covisint in Europe	Katarina Arbin, Ulf Essler	Electronic marketplaces are a popular phenomenon, both for academics and for practitioners. During the last two to four years we have seen several marketplaces trying to find their niches. One of the most discussed e-marketplace, especially in the business press, is Covisint, the "big" e-marketplace of the car industry. Because Covisint is so well known, it has become an example and a model for other industries. By taking a closer look at Covisint, we intend to gain insights that can contribute to knowledge about the emergent field of industrial marketplaces.

2002	15th Bled eCommerce Conference	From Economies of Scale towards Economies of Customer Interaction: Value Creation in Mass Customization Based Electronic Commerce	Frank T. Piller, Kathrin Möslin	Mass customization is seen more and more as an application of electronic commerce rather than a manufacturing approach. The paper sets a framework for value generation in mass customization based business models. Traditionally, mass customization was argued to be possible due to the capabilities of modern manufacturing technology. We argue that these capabilities are supplemented by a new set of economies arising not from new possibilities in the fulfillment system, but from a better knowledge position and switching costs resulting from the direct interaction with each customer provided by innovative applications of electronic commerce. By examining and structuring the underlying economic principles of mass customization, not only the limits and constraints, but also the benefits of this competitive approach will be better understood. For better planning mechanisms, the value and costs of a single process have to be known. In this context, we want to provide a starting point for further exploration.
2002	15th Bled eCommerce Conference	Getting Sophisticated with eBusiness: An Extended Model of B2B	Colin G. Ash, Janice M. Burn	This paper reports on research carried out in 1999-2001 on the organisational benefits arising from e-business applications. An interview-based vehicle was used to collect data on a variety of established organisations from a diverse range of industries. The findings are analysed according to the level of sophistication of e-business model providing an extended classification of B2B. Eleven case studies of e-business integration are analysed in the context of this classification. Collectively the set of case studies is used to demonstrate the effects of increasing benefits from higher levels of sophistication of e-business integrating front and back-end systems through a network of e-business enabled organisations.
2002	15th Bled eCommerce Conference	SME Internet Adoption: Towards a Transporter Model	Margi Levy, Philip Powell	Internet adoption, in both large and small firms (SMEs), is promoted as a means to improve competitiveness. This paper questions current thinking that small firms progress through a 'stages of growth' model in their use of the Internet. Twelve SME cases are investigated. Outcomes suggest that most only perceive value in email and possibly a marketing web site. However, some SMEs see strategic potential and invest in e-business. The paper suggests that owners' recognition of the business value of the Internet combined with their attitude to business growth are key factors in determining Internet adoption strategies. Thus, SMEs will aim for specific adoption strategies to satisfy these requirements rather than follow a stages model. A 'transporter' model is developed to reflect the drivers identified and its implications discussed.
2002	15th Bled eCommerce Conference	Goriška eRegion a New Vision That Can Be Accomplished by Educating Citizens and Improving eSecurity	Aleksander Šinigoj	E-region is trying to provide cost effective on-line services for citizens, industries, schools and others in the region. The project is widely conceived but still the eeducation and e-security seem to be the two areas with highest priority. The role of the federal government is concerning as it hasn't determined yet that most of the economic growth in the biggest world economies is due to the clear focus in the information and communication technologies. This paper is providing the focus of the project and its main goals in the beginning stage of the project. Although the concepts of the e-region remain quite ambitious, most of the companies, professionals and politicians in the region support it in the belief of the better future.
2002	15th Bled eCommerce Conference	eProcurement Model for B2B Exchanges: An Australian Example	Mohini Singh, Doug Thomson	This paper discusses the application of B2B e-commerce in Australia. It addresses e-procurement facilitated by e-markets as it applied to a large Australian organization. A model to facilitate e-procurement is discussed in detail for the different business applications of the organization. The model was developed to provide guidance to the organization as it moved from traditional purchasing to eprocurement. The findings from the application of the model and associated issues for further research are also presented.
2002	15th Bled eCommerce Conference	Trust as a Governance Mechanism in Internet-based Interorganizational Cooperative Relationships	Gunnar E. Christensen, Leif Jarle Gressgård	In a world of increasing complexity and situational variety, business-to-business collaboration based on real time information pooling is thought to be central for optimization of the value creation process. The qualities of the Internet render possible a simultaneous exchange of information among an unlimited number of firms, causing both academics and practitioners to assert that inter-firm alliances based on the Internet will become increasingly important in economic life. This paper reports on an explorative study that focuses on the use of Internet technology in interorganizational cooperative relationships, and the consequences this may have for the use of trust as a governance mechanism. The findings indicate that trust-based governance to a large extent is dependent on the specific actors that are involved in the relationship, and the particular industry in which the companies operate. Further, while interorganizational trust was very important in the initial stages of Internet business, mainly because of a need for flexibility that allowed for adapting to unforeseen situations, our findings indicate that we now experience an evolution towards more formal control mechanisms as companies are getting more acquainted with the Internet as a medium for conducting inter-firm business transactions.

2002	15th Bled eCommerce Conference	An Integrated Information Strategy for eCommerce for Export: Enhancing Networking in an International Business Context	Tanya Castleman, Marina Cavill, Les Terrill	Companies using electronic commerce to facilitate their export activities (EC4X) need information and support at all stages of their export development and eCommerce adoption. This need is especially pressing for small and medium enterprises (SMEs). This paper reports the findings of a study of EC4X information and support needs among a sample of Australian companies. Evidence from SMEs, business associations and the Victorian state government suggests that governments need to develop a strategy for cost-effective on-line EC4X material that incorporates both generic and specific information. On-line provision of information is an effective way to meet the needs of SMEs and is increasingly the preferred channel for government bodies seeking to promote EC4X capability. However, personal contacts and networks are still an essential part of international business. Thus, an effective government strategy will support the business networking and personal contacts so important to help SMEs develop both eCommerce and export activities.
2002	15th Bled eCommerce Conference	An eBusiness Model Ontology for Modeling eBusiness	Alexander Osterwalder, Yves Pigneur	After explaining why business executives and academics should consider thinking about a rigorous approach to e-business models, we introduce a new e-Business Model Ontology. Using the concept of business models can help companies understand, communicate and share, change, measure, simulate and learn more about the different aspects of e-business in their firm. The generic e-Business Model Ontology (a rigorous definition of the e-business issues and their interdependencies in a company's business model), which we outline in this paper is the foundation for the development of various useful tools for e-business management and IS Requirements Engineering. The e-Business Model Ontology is based on an extensive literature review and describes the logic of a "business system" for creating value in the Internet era. It is composed of four main pillars, which are product innovation, infrastructure management, customer relationship and financials. These elements are then further decomposed.
2002	15th Bled eCommerce Conference	Capturing the Dynamics of eBusiness Models: The eBusiness Analysis Framework and the Electronic Trading Infrastructure	Sean T. McGann, Kalle Lyytinen	We outline a business model based analysis framework, which helps examine the intricacies and evolution of eBusiness. While the current research has mostly examined volume and scope as indicators of eBusiness evolution, we suggest that this analysis should be augmented with qualitative analysis of the evolution of eBusiness models, their implementation strategies and diffusion. The critical part of this examination is the identification of two constraints that affect eBusiness model evolution: the maturity of the electronic infrastructure (ETI), and environmental factors consisting of regulatory frameworks and push-pull diffusion factors. After presenting the defining concepts of our approach, we exemplify the value of the framework by analyzing the evolution of B2B and B2C business in the US over the past 5 years.
2002	15th Bled eCommerce Conference	Promises and Pitfalls of SME Integration	Roman Beck, Tim Weitzel, Wolfgang König	The advent of Web technology and standards as XML had many hope for seamless business integration. Especially small and medium sized enterprises (SMEs) were considered to finally participate in existing EDI networks. But there are drawbacks to SME integration. In this paper we show that there are principle obstacles to integrating SMEs that are often neglected. If SMEs do not employ automated material management systems, there is obviously most likely no possible benefit from processes automation. Also, the SMEs' relative position within a value chain can pose typical problems. Addressing some of the identified problems, a solution called ASP-EDI is proposed, the concept of which has recently been proven when it was implemented as part of the new Internet strategy within the German office supply industry (95% SMEs). The co-developed WebEDI converter described in section 5.1 (ASP-EDI) has won the third price of the German "IT inside SME 2010" award.
2002	15th Bled eCommerce Conference	Japan Net Bank: Japan's First Internet-Only Bank – A Teaching Case	Ali F. Farhoomand, Vincent Mak	Japan Net Bank (JNB), Japan's first Internet bank without physical branches, began operation in October 2000. It attracted mainly young customers looking for convenient, round-the-clock bank services with much more competitive interest rates and transaction charges than traditional Japanese banks. Its access channels included the mobile Internet service i-mode and fixed-line Internet. JNB relied on flexible, open computer systems and a young workforce of only 100 people to minimise operational costs. Its stakeholders, including parent company Sumitomo Mitsui Banking Corporation (SMBC) and NTT DoCoMo (provider of i-mode), were all big companies from different industry sectors. This stakeholder base gave JNB market exposure and access to their established customer bases. By April 2001 JNB had 130,000 customers. It aimed at winning one million accounts and A¥1 trillion deposits and becoming profitable by the financial year 2002. But it needed to resolve a number of issues before being able to achieve long-term success in the face of strong competition from bricks-and-mortar banks and new Internet-only banks. One of those issues was about how to meet with wide fluctuations in usage without over-investing; the other was alliance management, i.e., how to co-operate with alliance partners to achieve competitive advantage.

2002	15th Bled eCommerce Conference	Improving the Retail Grocery Supply Chain through Mobile Shopping of Electronically Referenced Products	Panos Kourouthanassis, George M. Giaglis, Georgios I. Doukidis, Vassilis Pergioudakis	The grocery industry is one of the largest and most important industries, with supermarkets and grocery stores being amongst the most popular and diverse businesses. This evolution would not have been possible without effective supply chain management. However, contemporary supply chains, especially those of Fast Moving Consumer Goods (FMCG), still conceal numerous inefficiencies, mainly in the collaboration between trading partners, which heavily affect the overall replenishment process. These inefficiencies imply that opportunities for further improvements can be identified. The MyGROCER concept aims at exploring these opportunities to provide an effective solution to the inefficiencies of the retail grocery supply chain through mobile shopping of electronically referenced grocery products. The MyGROCER business and technology framework exploits the opportunities that emerging telecommunication and mobile commerce technologies, coupled with automatic product identification technologies, provide to enable an efficient home replenishment schema, to enhance the quality of service provided by retailers, and ultimately to add value to the consumer. This paper discusses the rationale behind this concept, identifies a number of pertinent research themes, and concludes with a critical appraisal of its market potential.
2002	15th Bled eCommerce Conference	Using Actor-Network Theory to Research the Implementation of a B-B Portal for Regional SMEs in Melbourne, Australia	Arthur Tatnall, Stephen Burgess	E-commerce portals come in all shapes and sizes, but they all have one thing in common: they all involve interactions between information technology and people. Information systems are complex socio-technical entities and research into their implementation needs to take account of this. This paper describes the research approach used in investigating the implementation of a business-to-business ecommerce portal for small to medium enterprises in the western region of Melbourne, Australia. The research approach is based on actor-network theory and innovation translation, and this paper shows how this approach can be usefully employed in socio-technical situations involving technological innovation.
2002	15th Bled eCommerce Conference	The Importance of Technology Trust for B2B Electronic Commerce	Pauline Ratnasingam, Paul A. Pavlou, Yao-hua Tan	Whereas the traditional notion of trust primarily focuses on trust in a trading partner, trust in e-business also incorporates the notion of trust in the infrastructure and the underlying control mechanisms (technology trust), which deals with transaction integrity, authentication, confidentiality, and non-repudiation. We argue that value creation in B2B e-commerce is heavily dependent on technology trust. Given the absence of adequate metrics to capture the technology trust in B2B e-commerce, this research develops and validates measures for technology trust, captured both as perceived benefits and also as B2B e-commerce performance. Our empirical results strongly support the hypothesis that technology trust is essential for successful B2B e-commerce.
2002	15th Bled eCommerce Conference	The Virtual School @ Liverpool – a Teaching Case	Martha Garcia-Murillo, Lauren Brady, Prafulla Gupta, Michael Kumm, Akira Tsumura, Amit Valia	The case describes the decision by the Liverpool School District to set up an online school. The case describes the challenges associated with the implementation of the virtual school. Some of the issues of concern and discussion for this case are (1) the target population, which was identified to be primarily rural schools in the US as well as homebound children; (2) quality of classes, which they wanted to meet New York state standards; (3) teacher training; (4) the fee structure to make the school financially viable; (5) the technology choice between Blackboard and WebCT; and (6) the technical requirements for users.
2002	15th Bled eCommerce Conference	Can Internet-Based TV Succeed? Towards a Sequential Framework for Market Entry	Claudia Loebbecke, Marcia Falkenberg	The advent of the Internet alleviates the access bottleneck to TV distribution channels and softens licensing requirements. This lowers entry barriers to TV markets via the Internet in various forms. This paper takes the German TV sector as an example to analyze the attractiveness of TV markets for new entrants. A sequential framework for entering TV markets is introduced. The skills set of an Internet-based TV provider for such an entry is examined. Technical feasibility, legal aspects, and potential sources of revenue are considered. Potential above average profits due to the market's oligopolistic structure, as well as an increased contestability thanks to lower market entry barriers render the German TV market attractive for new entrants. In early 2002, Internet-based TV still faced severe technical and legal constraints. The analysis suggests that once these constraints have been overcome, the internet can be an attractive additional distribution channel for television. While existing revenue sources from the TV sector are expected to be transferable to a certain degree, the value of innovative revenue sources based on online sales cannot yet be determined. This value will depend on the future acceptance of interactivity by the viewer (e.g. Owen 1999).

2002	15th Bled eCommerce Conference	On the Potential Use of Mobile Positioning Technologies in Indoor Environments	George M. Giaglis, Ada Pateli, Kostas Fouskas, Panos Kourouthanassis, Argiris Tsamakos	A great deal of attention is recently being paid to the potential of mobile communication technologies to redefine and extend the world of traditional eBusiness by rendering its applications available to mobile users. The term Mobile Business (mBusiness) has been coined to denote the ways in which mobile communication technologies can be applied to address the requirements of mobile users that need to access a varied range of applications and services through wireless access devices. However, the ongoing discussion on mBusiness is restricted almost solely to 'macro' applications in outdoor settings. In this paper we extend the definition of mBusiness to include a complementary set of 'micro' applications in indoor environments (such as museums, exhibitions, hypermarkets, and others), where location awareness can become a crucial parameter of value-added service provision. We contend that a wide number of indoor environments can benefit from location-based applications and services, albeit only after overcoming a number of technological and application challenges that exist today. The paper identifies such challenges through the discussion of ongoing research work investigating the potential applicability of indoor location services in the exhibition industry.
2002	15th Bled eCommerce Conference	EURO-CITI Tele-Voting: An Application for Realizing Opinion Poll Petitions	Efthimios Tambouris, Elias Spanos, Stelios Gorilas, Dionisis Hoholis, Marios Sintichakis	In this paper, the EURO-CITI tele-voting application is presented. This application enables local authorities to initiate a call-for-vote on a local problem, to set-up networks of local authorities' servers and initiate a call-for-vote on common problems, to monitor voting results and extract statistical information, etc. It further enables citizens to vote on local or common problems using PC, kiosks or WAP-enabled devices, to view voting results on their area or other areas (in the case of common voting), to propose their own call-for-vote, etc. The work reported in this paper includes an evaluation of tele-voting for realizing opinion poll petitions and a presentation of EURO-CITI tele-voting system user requirements, technical architecture and design. The tele-voting application is currently deployed and will be evaluated in three European cities, namely Athens, Barcelona and London borough of Brent.
2002	15th Bled eCommerce Conference	eConsent: A Critical Element of Trust in eBusiness	Roger Clarke	Gradually, discussions about the mechanisms needed to achieve trust by consumers in e-business dealings are becoming more fine-grained. One element that has attracted almost no attention to date is the signification of consent within telecommunications-based systems. This paper examines the role of consent within the broader area of trust; identifies its dimensions; proposes a framework within which e-consent services can be conceived, designed and developed; and considers the scope for implementation.
2002	15th Bled eCommerce Conference	Marketing in eWorld Era: Opportunities, Challenges and Dilemmas	Janusz Wielki	The paper discusses the problem of impact of electronic environment on marketing process. In the first part, utilization of various tools and techniques is presented and analyzed. Second part of the paper is focused on challenges emerging in the new e-reality. Next part briefly discusses opportunities arising for marketers with electronic environment development. Finally conclusions are provided.
2002	15th Bled eCommerce Conference	Evolution of Electronic Catalogs to Customer Process Portals – A Structured Approach at ETA S.A.	Rainer Alt, Christian Reichmayr, Marc A. Căsar, Rudolf Zurmühlen	First-generation E-commerce applications, such as corporate web sites or electronic catalogs have often been developed from a technological or marketing perspective. Technological features do not fit the customer's requirements or marketing does not conceive E-commerce as part of their customer relationship program. Disappointing transaction figures or business cases for E-commerce are the most common result. We argue that process thinking needs to be introduced in Evolution of Electronic Catalogs to Customer Process Portals – A Structured Approach... 193 E-commerce projects in order to match customer and internal processes. A structured approach to identify and decompose customer processes in portal elements has been developed together with ETA SA, a subsidiary of 'The Swatch Group'. In this process ETA's existing E-commerce system will evolve to become a customer process portal.
2002	15th Bled eCommerce Conference	eProcurement by the Brazilian Government: Some Findings from a Case Study	Luiz Antonio Joia, Fuad Zamot	The scope of this paper is to discuss the use of Internet Technology in the process of procurement currently employed by the Brazilian Federal Government. The focus of this analysis is on the Internet-Based Reverse Auction system employed by the Federal Administration to purchase goods and services from the standpoint of efficiency, efficacy and accountability. An explanatory single case study methodology addressing web-based purchase of pharmaceutical products by the Ministry of Social Security is used to answer the research questions raised in this paper. Technical, human and structural obstacles, as well as legal constraints that must be overcome, are also addressed. Conclusions detailing some findings and the advantages and disadvantages of this new modus operandi are also presented in this work.

2002	15th Bled eCommerce Conference	Critical Success Factors for Accelerating Mobile Commerce Diffusion in Europe	Adam P. Vrechopoulos, Ioanna D. Constantiou, Nikos Mylonopoulos, Ioannis Sideris	The rapid evolution of B2C e-Commerce alternative interaction channels (i.e., World Wide Web, Mobile Telephony and Digital TV) along with the continuously changing consumer behavioural patterns, has created a strong need for research tailored to the peculiarities and needs of the aforementioned emerging "distance shopping" channels. Stimulated by these evolutions, this paper focuses on the investigation of consumer attitudes and behaviours against mobile commerce in Europe, towards identifying the critical success factors for accelerating its diffusion in this particular market. To that end, an online consumer survey ran in three European countries (Germany, Greece and Finland), constituting the research vehicle employed within an exploratory research design setting. Despite the fact that some considerable differences regarding mobile commerce adoption rates and consumer behavioural patterns were observed between the three investigated countries, it was found that mobile commerce penetration in Europe is on its infancy. However, improving mobile devices, designing more user-friendly shopping interfaces, developing effective applications and services, along with reducing prices, influencing opinion leaders and solving security, bandwidth and coverage problems, constitute the critical success factors for accelerating mobile commerce diffusion in Europe.
2002	15th Bled eCommerce Conference	Electronic Contract Drafting Based on Risk and Trust Assessment	Yao-hua Tan, Walter Thoen	Contracts play an important role in the every day life of many individuals. Contracts are often negotiated and drafted in an unstructured manner. In this paper we propose a more structured model driven approach to contracting. In particular, we focus on developing a risk and trust model for the transaction that is subsequently used to negotiate the contract. We show how rules can be applied to the risk and trust model of the contract in order to advise the contracting parties how the contract could be amended, e.g. by introducing control mechanisms, to make it more appropriate to their respective risk and trust assessments.
2002	15th Bled eCommerce Conference	Making Sense of Mobile Applications – A Critical Note to Recent Approaches to Their Taxonomy and Classification	Hans Lehmann, Franz Lehner	Applications of Mobile Technology in business in the current environment are characterised by a critical reliance on a diversity of highly complex and often competing technology infrastructures and architectures. Classification models are often very descriptive and orient themselves more on the overt attributes than on the underlying qualities. Recent models, however, apply a wider set of concepts in an attempt to establish basic concepts. It is argued that the special character of mobile applications, their fluid environment and equally changeable technology foundations make qualitative research approaches more appropriate. A combination of Grounded Theory and Action Research methods is recommended for future research and a nascent research project with the objective of establishing fundamental conceptual frameworks for mobile applications is outlined.
2002	15th Bled eCommerce Conference	Analysis of Stakeholder Concerns with a View to Avoid Organisational Conflict in B2B Systems	Pradipta K. Sarkar, Jacob L. Cybulski	In recent years there has been a remarkable increase in information exchange between organizations due to changes in market structures and new forms of business relationships. The increase in the volume of business-to-business (B2B) transactions has contributed significantly to the expanding need for electronic systems that could effectively support communication between collaborating organizations. Examples of such collaborating systems include those that offer various types of business-to-business services, e.g. electronic commerce, electronic procurement systems, electronic links between legacy systems, or outsourced systems providing data processing services via electronic media. Development and running of B2B electronic systems has not been problem free. One of the most intractable issues found in B2B systems is the prevalence of inter-organisational conflict reported to exist and persists between the participants of interorganisational electronic networks. There have been very few attempts, however, to prescribe any practical method of detecting the antecedents of such conflict early in B2B development to facilitate smooth construction and the subsequent operation of B2B services. The research reported in this paper focuses on the identification and analysis of antecedent conflict in a joint process involving different organizations in a B2B venture. The proposed method involves identification of domain stakeholders, capturing and packaging their views and concerns into a reusable form, and the application of captured domain experience in B2B systems development. The concepts and methods introduced in this paper have been illustrated with examples drawn from our study of six web-enabled payroll systems.

2002	15th Bled eCommerce Conference	Successfully eEnabled SME's – What Have They Got in Common?	William Golden, Martin Hughes, Lucy Ruane	This paper investigates factors that contribute to the successful use of e-commerce by SMEs. Three main sets of factors are investigated – organizational characteristics, management issues and implementation issues. The research investigates these factors within successful e-commerce organizations - all of the 25 companies used in this research have been recognized publicly as successful implementers of e-commerce. The method of research used was in-depth personal interviews using a semi-structured questionnaire. The research reveals that the organizational factors that contribute to success include previous organizational IT expertise, previous experience with logistics and the suitability of the product for sale on the web. The management factors that have a positive influence on success include the existence of a champion, having an e-commerce strategy, and integrating the web presence into the existing business. The implementation issues that contribute to success include planning the web presence, usability of the web site, the existence of security features on the web site, outsourcing elements of the ecommerce project and marketing the web site.
2002	15th Bled eCommerce Conference	Mobile Commerce: A Summary of Quests for Value-Added Products and Services	Christer Carlsson, Pirkko Walden	The first signs of mobile commerce hype are here. Extremely rapid penetration and growth processes are predicted on the basis of some quick descriptions of mobile technology. The roots of these predictions are often found in markets with a low penetration rate of mobile technology. Nevertheless, it should be clear that without real substance in m-commerce products and services the investments in the new mobile technology could still fail. We claim that much more should be known about what actually will be the m-commerce products and services. We will argue that value-added products and services should be understood from the viewpoints of (i) the users, (ii) the producers and (iii) the management. The first results from an expert survey on m-commerce carried out in Finland, Hong Kong and Singapore are used to argue these points.
2002	15th Bled eCommerce Conference	A Taxonomy of Intermediary Integration Strategies in Online Markets	Leif B. Methlie, Per E. Pedersen	We propose a taxonomy for understanding the structural conditions under which intermediaries in online markets choose their strategies, roles and functions. The fundamental concept behind these choices is integration – vertically and horizontally. Integration is a complex, multidimensional concept influencing the choice of strategy, governance form and business model. We propose a taxonomy identifying a set of structural conditions concerning markets, actors, products and individual transactions determining an intermediary's integration options (map-it). Our taxonomy is built on combining theoretical frameworks as well as evidence from online markets. We demonstrate the use of our taxonomy by applying it to the online financial advice sector. The application reveals how structural conditions make intermediaries choose specific integration options.
2002	15th Bled eCommerce Conference	The Introduction of M-Info – A Teaching Case	Els A.M. van de Kar	Assisted by ICT developments mobile telecommunication is becoming web enabled. The new Wireless Application Protocol (WAP) makes it possible to use existing GSM mobile devices and networks to surf on the Internet without being connected to a wire. This paper represents a teaching case with a focus on the introduction of a new internet based service, namely the M-info service by KPN Mobile in 1999. This case was prepared as basis for class discussion in an e-business course.
2002	15th Bled eCommerce Conference	Customer Service and Network Completeness	Richard T. Watson, M. Kathryn Brohman, A. Parasuraman, Gabriele Piccoli	Companies are increasingly replacing functions traditionally performed by human servers with network-based customer service systems (NCSSs). Based on an analysis of 30 Web sites of leading service providers and in-depth field studies of NCSSs currently used by five major companies representing a variety of customerservice contexts, we introduce “network completeness” as an important concept for understanding how to deliver effective customer service. Various forms of network completeness are discussed and an analysis of its effects presented.
2002	15th Bled eCommerce Conference	Are Business Websites Complying with Government Privacy Legislation?	Nicole Watt, Joan Cooper, Lois Burgess, Carol Alcock	2001 was a key year for privacy in Australia. In December 2001 new privacy legislation came into existence for both the public and private sector. This legislation changes how organisations handle their information management. This study reports on a survey of 70 Australian Business websites from August to September 2001. The purpose of the survey was to determine what percentage of the businesses had a privacy policy and where a policy was evident it was analysed to determine to what extent it complied with the new privacy legislation guidelines.
2002	15th Bled eCommerce Conference	Supporting Coordination in Dynamic Virtual Enterprises	Olivera Marjanovic	Dynamic virtual enterprises (VE) involve rapid, on-demand, teaming of business partners in pursuit of specific business objectives defined by the customer. Current literature confirms the need for new coordination structures and tools to be used to support management of a shared business process in these emerging forms of organisations. The main objectives of this paper are to investigate coordination requirements in dynamic VE and to propose a mechanism called the time-map that can be used to support coordination during all phases of the VE life cycle.

2002	15th Bled eCommerce Conference	Entering eCommerce – Experiences from a Finnish Ferry Company - Case Silja Line	Reima Suomi	The period around millennium-change has seen the boom of different e-commerce solutions and initiatives. First dedicated new economy companies (the so-called dotcom-companies) seemed to rob the market, but little by little established old economy companies have taken a more dominating role in the market. This study follows the early months of development of the interactive reservation system for Silja Line Ltd., a Finnish ferry company operating at the Baltic. Silja competes for the market leader position in its market with Viking Line, but the market has too several other players. The article reviews literature on the early phases development of e-commerce sites, and reflects Silja's developments against those in the literature. Based on Silja's experiences, the article gives recommendations for entrants to e-commerce business. Especially the article is valid for builders of electronic reservation systems, but tries to extract general knowledge applicable in the first stages of any e-commerce site. The author has had a consulting role at the development of the e-commerce application for Silja. Research method can so be called action research. The article gives an integrated picture of the decision-flow about e-commerce in Silja, and documents the outcomes of these decisions.
2002	15th Bled eCommerce Conference	IT and eCommerce Outsourcing in Small to Medium-Size Enterprises in New Zealand: An Exploratory Research	Nabeel A. Y. Al-Qirim, Hanoku Bathula	In New Zealand, small to medium-sized enterprises (SMEs) play a very important role in the economy by their contribution to both employment and also to gross domestic product. Addressing issues pertinent to SMEs is of paramount importance in driving this sector forward. Information Technology (IT) emerges as one main enabler for SMEs in automating their operations, seeking new opportunities and enhancing their strategic business positioning in local and international markets. However, the dynamic nature of IT and inability of SMEs, due to problems inherent in their size and structure, makes it difficult for them to take appropriate decisions to benefit from the IT technologies. The advent of eCommerce (EC) has only compounded this problem. One way out of this complex situation is to outsource the IT and EC technology requirements by the SMEs. This study endeavours to identify the pattern of IT and EC outsourcing issues of SMEs within New Zealand. It reveals that the main driver for IT outsourcing is access to expertise and used mainly for maintenance purposes only. The study also identifies the problems in IT outsourcing and makes suggestions for further research in this crucial sector.
2002	15th Bled eCommerce Conference	Implications of Pure Electronic Commerce for Vertical Integration	Ian MacInnes, Kasama Kongsamak, Robert Heckman	This article identifies how pure electronic commerce transforms the creator/publisher relationship in the book and software industries. Pure electronic commerce refers to a transaction that uses information systems to avoid physical exchange and occurs entirely in the digital form. Using coordination and transaction cost theory as a theoretical framework, this article posits that coordination costs are a key determinant of vertical integration and intermediary tasks in the digital industries and help explain why the transition to pure electronic commerce has been slow. Despite the fledgling state of the transformation, the article analyzes the two digital industries in such areas as compatibility standards, complexity of product development, after-sales support, intellectual property, development funding and marketing risks, and brand. The analysis of industry transformation leads to the conclusion that software is likely to be more vertically integrated than books. Also, once the coordination cost barrier is overcome, it is likely that there will be more vertical integration between developers/authors and publishers, which in turn may result in fewer, larger publishers and that publishers will eventually gain relative market power over the developers/authors.
2002	15th Bled eCommerce Conference	Security Issues in Mobile Commerce Using WAP	Niels Christian Juul, Niels Jørgensen	The Wireless Application Protocol (WAP) has been proposed as a way to get Internet (or a sort of Internet) to the small wireless and mobile devices, e.g. mobile phones, while accommodating for the special characteristics of such devices. Originally, WAP was designed with a gateway in the middle, acting as the interpreter between the Internet protocol stack and the Wireless Application Protocol stack. The WAP gateway forwards web content to the mobile phone in a way intended to accommodate the limited bandwidth of the mobile network and the mobile phone's limited processing capability. However, the gateway introduces a security hole, which renders WAP unsuitable for any security-sensitive services. Through a set of standard releases, primarily version 1.2.1 (June 2000) and version 2.0 (July 2001), security issues have been addressed. We discuss the security hole and the gateway-based design that has led to it, including the business and architectural considerations underlying the design. A number of ways to correct the situation are discussed, including application level security, which still hasn't been fixed in the WAP 2.0 standard of the July 2001 release. Finally we observe, that although version 2.0 allows skipping the gateway thereby tightening security, the added cost is not negligible.



2002	15th Bled eCommerce Conference	Role of eBusiness in Transition of Yugoslav Economy	Marijana Vidas-Bubanja, Emilija Vuksanović, Borislav Jo.anov	This paper presents the state of development of e-business and Internet use in Yugoslavia. The problems Yugoslavia faces in this matter are in some respect very similar but in other very specific comparing to other transition economies. Having in mind ten years period of Yugoslav isolation from European and world economy, for this country general economic transition (which starts much later comparing to other countries) and the move towards e-oriented economy were parallel and mutual reinforcing tasks. Both are pre-condition for further domestic development and quicker reintegration in the world market. E-Life in Yugoslavia under this analytical framework was presented by describing the activities undertaken in the field of e-banking, e-commerce, e-education and by pointing out some government initiatives and the importance of regional and international cooperation in this field.
2002	15th Bled eCommerce Conference	Using Action Research for Gaining Competitive Advantage out of the Internet's Impact on Existing Business Models	Christoph Auer, Manuela Follack	The aim of this paper is to identify the contribution of the action research theory within a methodology for developing eBusiness business models which was elaborated at evolaris and is currently validated in various business cases. First a definition of the terms business model and action research are given and the prerequisites for such a methodology are presented. We found that for the improvement of existing business models the principles of action research – to interact intensively with the participant; or to review, to document, and to reflect the found results – are very valuable. Consequently the presented methodology is divided into the three phases –Understand, Identify the internet's impact and Change. These phases embraces seven specific steps which are grounded either on system theory, system dynamics or action research. First results obtained in a business case with one of our partners imply the importance of the application of the action research theory in a methodology for improving existing business models.
2002	15th Bled eCommerce Conference	The Beta Reputation System	Audun Josang, Roslan Ismail	Reputation systems can be used to foster good behaviour and to encourage adherence to contracts in e-commerce. Several reputation systems have been deployed in practical applications or proposed in the literature. This paper describes a new system called the beta reputation system which is based on using beta probability density functions to combine feedback and derive reputation ratings. The advantage of the beta reputation system is flexibility and simplicity as well as its foundation on the theory of statistics.
2002	15th Bled eCommerce Conference	Assessing the Value of Emerging Technologies: The Case of Mobile Technologies to Enhance Business-To-Business Applications	Judith Gebauer, Michael J. Shaw, Kexin Zhao	In this paper, we propose a two-step framework to advance our knowledge of how to identify and evaluate opportunities presented by emerging information technologies (IT). As a first step, we match the features and limits of the IT innovation with the requirements of the application areas in question, typically on the business process level. As a second step, we sketch out guidelines to evaluate these windows of opportunity in a quantitative way. To further explain the framework and showcase its applicability, we provide a proof-of-concept case study, reporting on the application of wireless technologies to enhance an electronic procurement application at Motorola, Inc.
2002	15th Bled eCommerce Conference	Living Brands Requirements for Brands in the Digital Economy Redefined	Daniela Eiletz-Kaube, Michael Ksela	The marketing discourse of the past 10 years was dominated by stagnation and depression. Advertising at the edge of perception, inexpedient segmentation of target groups, continuously revised and adapted manifestations of marketing tools provoking at best a three to five percent return, squibbed marketing budgets – the former marketing director of Coca Cola, Sergio Zyman, preaches the "The end of marketing as we know it" and the renowned marketing expert Stephen Brown even conjures up a "Marketing Apocalypse". This paper attempts to analyze the revolutionary transformation of consumption patterns and - thus of marketing – and to offer new approaches to branding in the digital economy by introducing the concept of Living Brands.
2002	15th Bled eCommerce Conference	Customer Requirements Elicitation in Intelligent Electronic Sales Support Systems	Sascha Schmitt, Tilmann Fingerle, Carsten Tautz	The convenience of shopping on-line via the Internet has become a widely accepted view. An important aspect of automated electronic sales systems is communication with the customer. Nevertheless, customers encounter quite frequently user interfaces that are hard to use – either because they have to answer annoying or irrelevant questions or they are faced with technical jargon of manufacturers they are not able to understand. Once they have managed to articulate their needs, the system may return no products at all or a very long list of products satisfying the customers' needs. Recently, knowledge-based systems, and in particular case-based reasoning (CBR) systems, have been recognised to alleviate these problems. They provide means for intelligent dialogs and search mechanisms, which are also able to offer alternative products (avoiding the "sorry, no matching products found" syndrome). In this paper, we suggest a framework enabling the characterisation and comparison of various strategies for eliciting customer needs. The framework is used to briefly describe and characterise advanced commercial, state-of-the-practise applications, which are available publicly. Furthermore, we present our tool, leveraging CBR technology, behind these applications.

2002	15th Bled eCommerce Conference	The BFIT Electronic Business Analysis Methodology*	Maria-Eugenia Iacob, Piet Boekhoudt, Erwin Fielt, Edward Faber	The recent abundance of notorious dotcom failures leads to an acute need for realistic evaluation procedures for the performance of e-business initiatives. This paper proposes a structured approach for e-business analysis. The methodology contains three interrelated parts: a structured set of aspects, a set of analysis objectives, and a guiding plan for analysis. The set of aspects is grouped around the BFIT acronym, which stands for Business model, Finances and Information & Technology. These aspects are further decomposed, resulting in an aspect (reasoning) tree. The analysis objectives are related to parts of these reasoning trees. The analysis process follows a step-wise plan, which uses the proposed BFIT tree structure. A Web-based analysis tool was designed to support the BFIT analysis methodology.
2002	15th Bled eCommerce Conference	Factors Affecting the Successful Introduction of Mobile Payment Systems	Hans van der Heijden	A prerequisite to carry out transactions using a mobile phone is an effective mobile payment system. However, no standardised, widely adopted mobile payment system has yet emerged, and this is believed to be one of the factors that inhibits widespread use of mobile commerce. This paper reports on a research project in which the factors are examined that affect the introduction success of mobile payment systems. We start from the venture point that a lot can be learned from research on internet paying systems, payment systems that have been introduced to facilitate payments made over the internet. First we transferred factors affecting the introduction of internet payment systems to a mobile setting. We then contrasted this list with the views of 13 executives we interviewed in Sweden and the Netherlands. We found that while many factors are at play at the same time, a subset of these stood out at the early stages of the lifecycle of mobile payment systems. In the area of consumer acceptance, these are their cost and their ease of use relative to other payment methods, and the perceived risk. In the area of merchant acceptance, transaction fees compared to debit and credit card systems are important, as is, to a significant extent, the ease of use for the merchant. Finally, both customer and merchant acceptance are highly interdependent as each influences the other, especially during the early stages.
2002	15th Bled eCommerce Conference	Intranet Boundaries: Social Actors and Systems Integration	Roberta Lamb	Systems integrations (SI) have been examined from two main vantage points. External B2B SI has focused primarily on transactional interactions between customers and suppliers in the value chain. Internal intra-organizational SI has focused on structural interactions between functional units of the firm. Both approaches present problems for intranet integrations that serve communities of practice which often cross organizational boundaries, and that support nontransactional types of interactions. In this paper, I present four vignettes of intranet integration that highlight the value of a project-based approach to SI, and also suggest how a newly developed framework for social actor analysis can help to foster that approach.
2002	15th Bled eCommerce Conference	Horizontal Portal Strategies: Winners, Losers and Survivors	Sandra Sieber, Josep Valor	The arrival of Internet offers both opportunities for incremental efficiency gains and complete industry redefinition presenting new value propositions and hence leading to the emergence of new businesses and industries. One particular case is that of the horizontal portal industry, with consistently the most visited sites on the Web. Nevertheless, and despite the ongoing concentration of the market, overall profitability remains low. In this paper we argue that, although the industry has a great potential for value creation, value appropriation in information-based businesses remains problematic. Still, interest in this industry is huge, which is understandable if one analyzes the industry within its online value network. As we show, horizontal portals constitute a critical link in this network, as it is both a way of organizing content, which seems to be the king of the future, and captures and canalizes the incoming traffic of the Internet Service Providers. Still, they face a number of hurdles to capture the value they generate and become profitable.

2003	16th Bled eCommerce Conference	Colonising the Field – Who's Playing with Web-based Information Systems Development?	Chris Barry, Jeremy Brown	Two main schools - information systems (IS) and software engineering (SE) - occupy the domain of systems and software development, in both practice and research. Surprisingly, while there would appear to be many common activities, the academic fields have traditionally had limited overlap or shared experience. The information systems school has largely focused on in-house systems, concentrating on the socio-technical approach toward systems development while software engineering attempts to apply engineering principles and formal methods to the production of software systems. However the fields collide where new, Web-based systems share both in-house usage and external commercial software characteristics. While it might be expected that practitioners would be informed by innovative development methods, research indicates that practitioners are not making use of new multimedia and web development method and techniques. The crossover between the fields of IS and SE resurrects up some old problems and new questions. This paper traces the roots of IS and SE; briefly contrasts education and research of each; and examines the differences and common areas of the fields. From a study of how each field is characterised an IS body of knowledge (ISBOK) is identified. How Web-based Information Systems relate to each field is discussed and from the analysis a simple classification framework is constructed, weighing a systems life cycle against quality. The paper concludes with a call for greater cross-fertilization between the fields. Finally the authors suggest important subjects that IS researchers should be studying and others that should be of interest to both SE and IS researchers.
2003	16th Bled eCommerce Conference	Information and Communications Technology in Croatia: Hope Carrier for More Growth?	Michael König, Andrijana Mandarić, Dubravko Radić	In times of growing integration of global economic structures it is inevitable that Croatia together with other European countries faces a number of necessary and difficult adjusting measures. Enterprises in inefficient and not competitive business sectors have to be substituted by new, promising ones. One business sector which is considered to be a great hope carrier for more growth among Western European countries is the Information and Communications Technology (ICT) sector. While in some European countries the role of ICT has grown considerable during the last years, others are just beginning to feel the changes. The impacts of ICT are manifold. On the one hand there is no doubt about the productivity enhancing effects of ICT in the long run. These positive impacts, however, come at the expense of short run adjustment costs. In this paper we constitute input into the discussion on the role ICT should play in Croatia to enhance their competitiveness among other European countries. Our central goal is to analyse comparative advantages and – disadvantages of Croatia in comparison to other European countries in the field of ICT in order to conclude economic policy measures to improve the economic situation in Croatia.
2003	16th Bled eCommerce Conference	User Representation in eCommerce and Collaboration Applications	Michael Koch, Kathrin Möslin	The development of the Internet was originally based on the assumption that a user remains anonymous. However, more and more services need to know the user for providing personalized services or for presenting the user to other users. As in real life, a user will interact with different services hosted by different providers. With the current approach users have to provide and update information about their identity and interests for each service independently. That results in cold-start problems for new services and in inconvenience for the user. In this paper we argue that user-centric global identity management is needed for future e-commerce and collaboration applications. We present the current state of art in the area of identity management, discuss needs and possibilities for future developments, and show some results of the work we have done in this context.
2003	16th Bled eCommerce Conference	Value Creation in eBusiness: Exploring the Impacts of Internet-Enabled Business Conduct	Gunnar E. Christensen, Leif B. Methlie	This research seeks to explore value creation through e-business by emphasizing the impacts of Internet-enabled business conduct. We assume that firms may reap the benefits of engaging in e-business only if they are able to develop, adopt and use Internet-enabled business models (e-business models). Moreover, e-business value is created only if firms adopt e-business models that respond to relevant value drivers. Value drivers are certain key aspects of the business model that play a key role and possess the power of directly influencing e-business value creation. In this study, several economic and financial performance measures were used as value indicators. A survey was conducted in Norwegian enterprises. This research confirms that e-business is in its infancy. Moreover, in addition to a fairly limited e-business experience, the participating enterprises seem to have put all their efforts into relatively simple and primitive ebusiness solutions. Hence, the power of the Internet is wasted on solutions that basically support the automation of existing and traditional business processes. For a vast majority of the enterprises participating in this study, there have been no significant changes in key economic and financial indicators since they took up e-business. However, our research demonstrates that there is an association between value creation and e-business conduct. E-business value creation is associated with relevant e-business value drivers, namely efficiency, complementarities, customer retention, and innovation.

2003	16th Bled eCommerce Conference	Satellite Ireland: An Investigation of the Outcomes from a Government Sponsored Broadband Trial	William Golden, Martin Hughes, Murray Scott, Fiona Conway	Insufficient telecommunications bandwidth and the download delays that this causes impede the development and use of Internet applications such as multimedia for B2C commerce. The widespread adoption of broadband technologies would, it is predicted, fuel growth in electronic commerce. Such a deployment would allow consumers to embrace online retailing, telecommuting, distance learning, and all kinds of other bandwidth-hungry services. Given that so much is at stake with the successful adoption of broadband technologies the issue has public policy and economic implications. Governments can put in place policies and incentives that encourage the use of the Internet and in turn developing electronic commerce and ultimately economic growth. This paper researches the outcomes of a government funded pilot implementation of satellite broadband technology, namely the Very Small Aperture Technology (VSAT). The main purpose of the government trial was to investigate the potential impact of a telecommunications broadband infrastructure. The technology was provided on a trial basis to three diverse geographically dispersed user groups. In-depth interviews were carried out with personnel in the Department of Public Enterprise – the government department responsible for implementing the pilot project. In addition, interviews were conducted with the three companies who participated in the broadband trial. The research examines the electronic commerce opportunities presented to a region with the introduction of broadband, the experience the user has had with the technology and identifies the opportunities that have arisen as a result of using the technology. In addition, it outlines and explains the opportunities that have been exploited and those forgone and evaluates the importance and impact of this governmental pilot project to provide broadband connectivity.
2003	16th Bled eCommerce Conference	Visualisation of Complex Business Data: A Neural Network Approach	Eija Koskivaara	Reliable and well-audited financial statements attract the capital that finances business. Analytical auditing plays an important role in assisting the auditor in determining the nature, timing and extent of his or her substantive testing and in forming an overall opinion as to the reasonableness of recorded account values. It is used to improve the efficiency of auditing. Basically, in an analytical auditing one compares expected relationships among data items to actual observed relationships. This paper shows how neural networks, especially Kohonen's self-organising map (SOM) can be used in analytical auditing when auditing monthly account values. The SOM is used for clustering monthly data sets. Neural network systems are based on computational intelligence. The purpose is to show how the data sets of various accounts and various years form their own groups. We found that the SOM can add value to auditors in the analytical process: it is a tool for classifying and clustering data sets that reveals if some cluster contains data that a priori should not be in it. Therefore, it can be used for signalling unexpected fluctuations in data. Furthermore, the SOM is a possible technique embedded in the continuous auditing tool.
2003	16th Bled eCommerce Conference	Impact of eBusiness Supply Chain Technology on Inter-organisational Relationships: Stories from the Front Line	Belén Icasati-Johanson, Steven John Fleck	Implementing e-business systems on supply chains has been predicted to lead to closer inter-organisational (IO) relationships. Adopting a qualitative and exploratory approach, we conducted a preliminary interview study and a comparative case study that sought to surface more specifically the underlying dynamics of how e-business systems affect IO relationships. In total we conducted 75 interviews. Participants were drawn from two customer organisations: a large food retailer and a large aerospace component manufacturer, and from their supplier bases. Following the implementation of e-business supply chain management systems (e-SCMS) in the customer companies, we observed substantial changes to various relationship aspects such as communication, perceived transparency, trust and collaboration. Differences in contextual factors such as customer approach to customer-supplier relationships, inter-firm process re-engineering initiatives, and e-SCMS functionalities implemented, appeared to determine the extent to which IO relationships became closer. We propose a set of tentative mechanisms to explain IO relationship changes and discuss some of the wider implications of the increased transparency created by e-SCMS on IO relationship dynamics.
2003	16th Bled eCommerce Conference	Business Process Orchestration and eBusiness	Maja Pušnik, Matjaž B. Jurič, Marjan Heričko, Boštjan Šumak, Ivan Rozman	The transition to electronic business has brought many changes in the business process. First steps in making business on the web have been web services, however the requirements for realization of multiple collaborations and automations are no longer satisfied simply by web services. New, more complex technologies for describing business processes are needed. In this paper we will compare the six most important ones: XLANG, WSFL (Web Service Flow Language), BPEL4WS (Business Process Execution Language for Web Services), WSCI (Web Service Choreography Interface), ebXML BPSS (Business Process Specification Schema) and BPML (Business Process Management Language). Based on the features they offer, we will compare them in a decision model and evaluate them with help of a utility function.

2003	16th Bled eCommerce Conference	Usefulness and Self-Expressiveness: Extending TAM to Explain the Adoption of a Mobile Parking Service	Per E. Pedersen, Herbjørn Nysveen	Research on the adoption of mobile services in everyday life contexts have shown how important entertainment and self-expressiveness are to the users' adoption of these services. However, as illustrated by the variables of the much applied TAM model, utilitarian motivations are still focused in ICT-adoption research. Mobile parking services may be used as a "crucial test" of the importance of utilitarian versus nonutilitarian motivations in the adoption of mobile services. In a field study, 459 trial users of mobile parking services were studied using a TAM model extended with the motivational influence of self-expressiveness. The results show that even if mobile parking services have been designed to meet the functional needs of the parking car driver, both the derived motivations of self-expressiveness and the extrinsic motivations of usefulness are important in explaining trial users' adoption of these services.
2003	16th Bled eCommerce Conference	Achieving Strategic Benefits from B2B eCommerce: A Multiple Case Study of the Australian Automobile Industry	George Tanewski, Philip A. Collier, Stewart A. Leech	A request from a powerful customer to use B2B e-commerce is a significant external stimulus for a supplier. Indications from extant research that considers the determinants of EDI adoption are that when customer power is exercised, supplier benefits from B2B e-commerce are typically diminished in the short term. However, with more information becoming available to suppliers using a wider range of electronic modes, suppliers need better advice about how to achieve inter-organizational strategic alignment and gain benefits more quickly. A model of strategic alignment is proposed and tested using multiple case studies in the Australian automotive industry.
2003	16th Bled eCommerce Conference	Factors Affecting Consumer Adoption Decisions and Intents in Mobile Commerce: Empirical Insights	Bill Anckar, Christer Carlsson, Pirkko Walden	Mobile commerce (m-commerce) is marking the start of new era of innovation in business. M-commerce will continue to extend the way organizations conduct business – and change the relationships between companies, customers, suppliers and partners. Mobility means freedom – say Keen and Macintosh – and freedom creates choice and value, something much more than convenience as it may revolutionize the way companies work, buy, sell and collaborate. Although the TAM is widely accepted as a pertinent model – on a general level - to explain the acceptance of information technology and information systems, it is questionable whether the model is applicable to consumers' choice of commercial channels, which makes its use questionable to explain the adoption of mobile and ecommerce. This proposal was tested with the material derived from a 1000 consumer survey in Finland and we found other drivers/inhibitors than perceived usefulness, perceived ease of use and perceived enjoyment.
2003	16th Bled eCommerce Conference	Business Model Formation within the Online News Market: The Core + Complement Business Model Framework	Cornelia C. Krüger, Paula M.C. Swatman, Kornelia van der Beek	The business model literature is both rich and rapidly-growing. Authors identify specialpurpose business and eBusiness models – and, increasingly, develop taxonomies of business models types. But, in searching for a comparatively simple way to understand the components of a "typical" internet business model, as part of our work for the EC research project SimWeb, we found that these taxonomies had little overlap and offered only a modest assistance to smaller companies trying to identify their own business identity. In this paper, therefore, we present the preliminary results of a three-year research project into appropriate business models for the online news and music industries. Having identified the problems, we describe the general taxonomies and components of Internet business models found in the literature, and explain our own core + component framework for developing an internet business model – using the online news industry as our example. We show how a combination of core and complementary components can be combined by any news-providing organisation for its Internet business model on the basis to its specific needs, resources and changing circumstances – and illustrate the usefulness of our this framework by means of "mini-case" examples of regional online newspapers in Germany.
2003	16th Bled eCommerce Conference	Linking eCommerce and Human Resource Strategies: A Case Study in a Large Australian Retail Bank	Yvette Blount, Tanya Castleman, Paula M.C. Swatman	The implementation of eCommerce technologies has considerably changed how employees in the banking industry interact with customers. For example, some customers use electronic banking applications to such an extent that they find little or no need to go into a branch. This change has had a significant impact on the way that jobs are designed and the way that employees are being managed. The preliminary findings from the case study of a large bank in Australia indicate that moving customers out of the branch to an online environment has created unforeseen issues for the way employees interact with customers and this in turn has changed the way that they do their jobs. The key challenge for banks in the future is how to form effective relationships with customers without some kind of face-to-face interaction. This impacts how organisations recruit and retain their staff as well as the level and type of skills required for jobs redesigned after the implementation of eCommerce applications. It is also an important factor in employee satisfaction

2003	16th Bled eCommerce Conference	A Framework for Understanding and Analysing eBusiness Models	Adamantia G. Pateli	As the evolution of e-business technology has passed from the early phase of hype and innovation to the mature phase of adoption and use, the research interest of both the academic and business communities is shifting to investigating opportunities for market exploitation of e-business technologies. As a result, the debates around established e-business models, as well as the way to achieve business model innovation, are ever increasing. However, while many researchers and practitioners are contemplating business models, there is a distinct lack of appropriate theoretical tools in the literature to structure and codify the extant knowledge in the area. The existing research contributions are featured by a great degree of diversity, which is due to the existence of a variety of reasons and motives for making research on business models. Thus, some researchers try to define business models, others to specify their primary elements, while others have proceeded further to introduce methodologies for developing, changing, or assessing business models. In this paper, we draw on a great number of research contributions in the field of e-business models to propose a framework that further decomposes the research area of Business Models into specific research sub-domains. The proposed framework is then applied to organise and review existing research contributions under each sub-domain.
2003	16th Bled eCommerce Conference	Economic and Social Analysis of the Adoption of B2B Electronic Marketplaces: A Case Study in the Australian Beef Industry	Caroline F. Driedonks, Shirley Gregor, Arjen Wassenaar	The purpose of this paper is to investigate factors that affect the rate of adoption of B2B electronic marketplaces as innovations. The paper reports a case study of AuctionsPlus, an electronic marketplace in the Australian beef industry. Two existing theories were drawn upon to explain the relatively slow adoption of this system. Kambil and van Heck's model of exchange processes offers a primarily economic view at the level of key stakeholder groups. Rogers' diffusion theory gives a more social viewpoint, at the level of the individual stakeholders. It was found that key stakeholder groups do not appear to be substantially worse off with AuctionsPlus from an economic exchange-process point of view. Considering the social and political dimensions of electronic marketplaces, however, contributes to further understanding of the case. Important influences appear to be loss of social capital, the nature of communication channels, time taken to reach critical mass, and the power of one group originally not recognized as a key player – the stock and station agent intermediaries.
2003	16th Bled eCommerce Conference	Postponement Strategies for Mobile Application Development – A Framework	Sze Ling Yuen	Rapid developments in the field of mobile applications, as well as the miniaturization of computing devices, are substantially changing the landscape of organizational computing (Lyytinen and Yoo 2002). Nevertheless, current methods of application development and models for process improvement are not effective for mobile applications development (Baskerville et al. 2002). There is a need to find an approach that does not only facilitate fast cycle time application development in a cost effective way, but also help to reduce risk. This paper proposes that the use of postponement strategies will meet the demands. This paper identifies four postponement strategies for mobile application development: Labeling, Place, Time and Periphery. The choice of strategies is based on a careful examination of previous literature and the nature of mobile application development. Thus, incongruent strategies are identified and excluded. A decision framework is proposed. The framework can be used to assist developers to choose the right postponement strategies, which can then result in a more rapid time to deployment, a reduction in technology risk, and lower operating costs. A case study at the end of the paper endeavors to illustrate the usefulness of the framework.
2003	16th Bled eCommerce Conference	Puzzles and Perspectives in Electronic Market Theory – Reflections on Adoption of a B2B Electronic Market in the Australian Beef Cattle Industry –	Arjen Wassenaar, Shirley Gregor	In recent years there has been a growing theoretical pluralism in electronic markets (EM) literature. On the one hand, this pluralism encourages the discovery of novel aspects of EMs, but on the other hand there is a danger of excessive theoretic "balkanisation" and it becomes easy to lose sight of the ways in which the various school of thoughts are related to each other. The problem is that different schools of thoughts tend to focus only single sides of the investigated phenomenon and are not on "speaking terms" because of their different logic and vocabularies. The purpose of this paper is to identify theoretic views in EM theory in order to classify the different schools of thoughts in EM theory and making their underlying assumptions explicit. The outcome of this research is a framework of perspectives in EM theory which can be helpful for both understanding as well changing the EM reality. Based on a detailed case study of an EM in the Australian beef market and a theoretical review of EM literature, this framework is developed. It distinguishes four views based on two analytical dimensions: (1) the relative emphasis on the deterministic versus the voluntaristic assumption about human behavior and (2) micro versus meso level analysis and the nature of change. These four views are: the coordination system view, the strategic choice view, the ecological natural selection view and network action view. This framework is used to explore and reflect on the striking, often contradicting findings of the case study.

2003	16th Bled eCommerce Conference	eOperational Model: Correlating x-Service Provision to the IT/IS Function for Innovation and Alignment	Christina Silveira, Philip Seltsikas, Robert M. O'Keefe	The Application Service Provision (ASP) business model can be exploited by organisations to tap into ready-made source of innovation. The ASP business model addresses a range of IT/IS services and markets: this is expressed by the ASP taxonomy that varies with the grouping of the value chain. On the other hand, the IT/IS infrastructure required for electronic business models can be complemented or replaced by an ASP offering. This is a synergistic combination for coevolving the business and the IT/IS infrastructure for greater alignment and innovation across and around the business. The ASP becomes a Meta model to e-business enterprises. The analysis of IT/IS needs for electronic business models delineates a new strategic partnering path that is required for innovation whilst maintaining an electronic enabled operational environment. The analysis reveals important issues for the management of ICT for e-business, and opportunities for ASP/xSP firms.
2003	16th Bled eCommerce Conference	eTransformation in Supply Chain Perspective	Sicco Santema, Marc Reunis	The purpose of the research program of SEMP (Scenter for E- Marketing and Procurement at the Eindhoven University of Technology, The Netherlands) is to gain insight into the effects and opportunities of electronic tools in procurement and marketing. It is believed that using these tools affects relationships between organisations in sales and purchasing situations. One of the research areas in this domain is the effect of e-procurement in dyadic relations. Within the context of this research area the following research question is addressed: What is the effect of e-procurement on the suppliers and buyers relationship in a supply chain? The question is dealt with in both mono and duocentric organisations. E-business is becoming a normalised instrument in improving cost efficiency and effectiveness in both (B2B) sales and procurement processes. By simplifying the chain as a set of dyads, one can clearly see that the supplier perspective and the buyer perspective coincide. Efforts for e-transformation from a buyer perspective might not be beneficial from a supplier perspective. For instance, e-procurement as a driver for spend-control always leads to reduced relationship-building activities from the supplier's point of view. On the other hand, e-procurement can also be intended to support purchasing and relationship processes, for example for strategic products and services. The supplier does not necessarily want to engage in this more relation oriented approach. This paper positions the idea that dyadic SCM confrontation with CRM can give insights into the effects of e-tools on supplier and buyer relationships in B2B context. By analysing the e-transformation in a supply chain perspective the applicability of e-tools can be assessed. The interaction model is proposed and buyer e-transformation initiatives (e-procurement tools) are described from a buyer and supplier (dyadic) perspective in B2B environment.
2003	16th Bled eCommerce Conference	TRiTAM: A Model for Integrating Trust and Risk Perceptions in Business-to-Consumer Electronic Commerce	Hung Kit Lui, Rodger Jamieson	This paper presents a theoretical extension of the Technology Acceptance Model (TAM). The extended model aims to predict and explain consumers' intentions to transact with an Internet-based business-to-consumer electronic commerce (B2C EC) system by integrating trust and risk perceptions with TAM. The proposed model (TRiTAM) was validated using data collected from 133 participants. The results provided substantial support for most of the proposed hypotheses and showed the significance of the extended constructs. Besides testing the model, the relative importance of the trust dimensions is also examined. Firstly, a summary of the quantitative results is presented. This is followed by a detailed discussion of the qualitative results. Several new insights on trust in B2C EC were found. The theoretical implications are discussed.
2003	16th Bled eCommerce Conference	Modelling Customer Relationships in eBusiness Illustrated through the Mobile Industry	Alexander Osterwalder, Yves Pigneur	The goal of this paper is to provide an ontological approach to modelling customer relationships, which helps managers optimize channels, improve customer acquisition, retention and add-on selling particularly in an e-business context. The advantages of a systematic approach are multiple. Modelling and mapping customer relationships allows a better understanding of the way a company interacts with its customers. A formal description is also communicable between the various stakeholders. Further, conceptually seized customer relationships are comparable to the customer relationships of competitors. Finally, a formal approach eases design and transformation. We illustrate the model with two examples of the mobile industry at the level of distribution channels and customer relationships for acquiring and retaining customers.
2003	16th Bled eCommerce Conference	The Paradox of the Mobile Internet: Acceptance of Gadgets and Rejection of Innovations	Ann Fogelgren-Pedersen, Kim Viborg Andersen, Christian Jelbo	Using the decomposed theory of planned behavior (DTPB), this paper addresses the drivers and inhibitors for end-consumer use of the mobile Internet. Qualitative interviews with 15 adopters who themselves classify them as adopters of the mobile Internet, indicates that the adoption of the innovative parts beyond voice and SMS is evolving slowly despite a high penetration rate of mobile phones (70%) and substantial amount invested in the mobile area. Larger displays, change in key boards, and improved convergence with other technologies are highlighted as the key areas that needs improvements.

2003	16th Bled eCommerce Conference	The Role and Significance of the Electronic Market Maker	Craig Standing, Rosemary Stockdale, Brynjulf Tellefsen	The significance of the market structure, in particular the role of the market maker, on the overall success of a marketplace is still an unresolved issue. This paper examines market structures with a focus on the role of the market maker to identify the implications for participants of the various structures and mechanisms employed in electronic markets. Market maker strategies are classified in a framework according to economic, network, service and community perspectives. The market structures of intermediary, hierarchy, consortium and large group ownership are mapped onto this framework to provide a model that relates structure with strategy. Each ownership model has implications for other market participants. These include the economic motive for intermediaries and political (power) motives for hierarchies and consortia. The large group ownership model has potential for e-markets with community motives. Whilst all marketplaces have architectures it is the architectural detail that makes e-marketplaces different to their traditional counterparts.
2003	16th Bled eCommerce Conference	Tele dermatology: The Case of Telemedicine Adoption and Success in New Zealand	Nabeel A. Al-Qirim	Using a theoretical framework extracted from the technological innovation theories, this research attempts to explain factors influencing the adoption and diffusion of telemedicine utilising the video conferencing technology (TMVC) for dermatology within health Waikato (HW) in New Zealand. Findings indicate weak presence of critical assessment into technological innovation factors prior to TMVC adoption. Factors such as complexity, compatibility, and trialability were not assessed extensively by HW and could have hindered its adoption. TMVC was mainly assessed according to its relative advantage and cost effectiveness. This is essential but should consider other important factors explained in this research. The successful diffusion of TMVC in the case study relied on its economical benefit and on its effectiveness as a diagnostic tool. This research highlights the importance of the product champion factor on the successful adoption and diffusion of TMVC.
2003	16th Bled eCommerce Conference	Reconsidering the Challenges of mPayments: A Roadmap to Plotting the Potential of the Future mCommerce Market	Melissa Soo Ding, J. Felix Hampe	The current market penetration of mobile phones in conjunction with an expected growth of mCommerce offers a high potential for the growth of mPayment over the next few years. Research analysts have predicted that mPayments will gain a significant foothold in coming years although high-speed data services and the requisite demand will not materialize overnight. A wide variety of mPayment technologies are available today, but the value of such services is not clear. Services launched have seen both success and failure and therefore service providers need a realistic vision of the future. This paper explores the factors that affect the growth of the mPayments market and attempts to provide a roadmap for reassessing the potential success of this future market.
2003	16th Bled eCommerce Conference	Authentication Re-visited: How Public Key Infrastructure Could Yet Prosper	Roger Clarke	What are the nails for which public key technologies are supposed to be the hammer? This paper examines the kinds of assertions that e-business needs to be authenticated, and evaluates conventional and alternative public key infrastructures (PKI) against those requirements. It concludes that the root cause of the limited success enjoyed by public key technologies has been inadequate requirements analysis, and proposes how PKI can be re-conceived in order to meet the real needs of e-business.
2003	16th Bled eCommerce Conference	Does B2B Data Exchange Tap the Full Potential of XML Schema Languages?	Volker Schmitz, Joerg Leukel, Frank-Dieter Dorloff	B2B data exchange deals often not only with the representation of content in standardized data structures, but also with the transformation of relational data to XML-based data and vice versa. During the transformation process not only the data structures but also the power of the data modeling concepts of the respective document standards must be considered. Based on this knowledge the conversion could be made easier or partly automatically. This paper examines, to what extent real-world B2B data exchange standards make use of XML schema languages for formal specification and if they tap the full potential of these languages. For that purpose the relevant modeling concepts are viewed and applied to selected B2B standards. The result is a close look at the common practice of XML schema languages in B2B data exchange.
2003	16th Bled eCommerce Conference	Internet Groupware Systems for Project Management: Experiences from a Longitudinal Study	Petra Schubert, Uwe Leimstoll, Nicholas C. Romano, Jr.	This paper describes a longitudinal study of practical experiences with three different groupware systems over a period of three years. The findings are based on surveys conducted each year among the project participants. The most recent groupware system, used in 2002, offers numerous services of which almost exclusively the central document database, the group calendar, and the to do list were used. From the user's perspective the main advantages were improved access to information and increased control of performed work. However system use consumed additional time and personal contacts among the users were reduced. Overall, users see more advantages than disadvantages and state that they would use a groupware system in future projects again. The comparison of the observations of the last three years shows that user interface usability and reliability are decisive factors for perceived usefulness and system acceptance. Both user interface and technical reliability have improved with each new system.



2003	16th Bled eCommerce Conference	Institutional Trust Related EDI Lessons for eMarketplaces	Pauline Ratnasingam, Yao-Hua Tan	Organizations around the world are capitalizing on a proliferation of new technologies and applications over the Internet and World Wide Web to develop e-business. Despite the interest in e-marketplaces, there are still many open questions about e-marketplaces and how they differ from other B2B e-commerce applications. This paper examines the lessons learned from EDI adoption to explain the success or failure of e-marketplace participation. Building upon the notion of institutional trust that develops through situational, structural and procedural factors, we propose a model which identifies facilitating conditions that favor e-marketplace participation. We conclude the paper with implications to theory, practice and directions for future research.
2003	16th Bled eCommerce Conference	eTransformation of the Silk Road: Rejuvenating a Historical Trade Network	Douglas R. Vogel, Robert Davison, Jože Gričar, Roger Harris, Maddalena Sorrentino	The Silk Road was a historical trade route that was most active in the 7th-9th centuries. The old Silk Road is little more than history now, but the cities and countries spread out across the old networks have not entirely disappeared. Contemplating a new Silk Road oriented around electronic commerce invokes a paradigm shift in terms of the societal framework for changes to be enacted. In this paper we seek to describe the current status and identify opportunities for the cities of the Silk Road to build on the successes of the past, thus creating e-commerce opportunities for the future. Through research in progress, we aim to discover if the former glory and success of the historical Silk Road can be reborn in a new eSilk Road. We draw on data gathered from published academic and government sources as well as from academic, government and business leaders in key Silk Road cities in Western China and Central Asia. In addition, we contribute our own personal findings and reflections based on site visits to key localities and interviews with local residents. We explore how a socio-technical approach to e-commerce development might be undertaken so as to maximize sensitivity to local norms and simultaneously involve local participants. Conclusions on the viability of an eSilk Road are drawn.
2003	16th Bled eCommerce Conference	Web Supported Competency Based Approach to Learning about eCommerce	Igor T. Hawryszkiewicz	The paper provides a framework for teaching about electronic commerce in business curricula. It emphasizes alignment of technology to business and uses a case study based on a design process to demonstrate such alignment. The paper describes web based teaching methods for doing so with the eventual goal of research to personalize learning to learner needs. It suggests a competency driven approach that provides choice for learners to follow different learning paths and bases this path on a metamodel of knowledge, in this case electronic commerce. The metamodel characterizes knowledge into learning about the technologies, learning about the benefits of the technologies to business processes, and uses a design process as the underlying framework to align technologies to business strategy.
2003	16th Bled eCommerce Conference	The eCommerce Strategy of New Zealand: Policy Implication for Small Business	Nabeel A. Al-Qirim, Brian J. Corbitt	This paper attempts to link findings of recent eCommerce research in small business in New Zealand with the Government's eCommerce strategy. The research stresses the need for the Government to bridge the existing gap between small business and eCommerce. The strategy emphasises the Government's role in providing leadership, in building the capability of New Zealanders, and in providing an enabling regulatory environment. The strategy is set out to be a complete partnership between Government, business, and the broader community to achieve these objectives. Recent progress on this strategy is reviewed and its significance to small business is discussed. The Government has actively embarked on setting up a comprehensive policy framework to guide the wide success of eCommerce in businesses in New Zealand. The Government's progress in this regard is admirable. However, this research points to the importance of prioritising the implementation of certain strategies and of addressing impending eCommerce issues relevant to the small business sector in New Zealand.
2003	16th Bled eCommerce Conference	Interorganisational Information Sharing and The Use of Decision Aids in Category Management	Frans Feldberg, Hans van der Heijden	Most research on interorganisational information systems has primarily focused on systems that support transaction processing. What is less developed, however, is research on systems that provide interorganisational decision support. In this paper, we explore the effectiveness of these types of systems, by developing a model that introduces the relationship between interorganisational information sharing, decision aids and decisions effectiveness. Specifically, we propose that information sharing will positively influence decision effectiveness if filtering and analytical decisions aids are made available. Relevance and usefulness of the propositions are demonstrated within the category management domain.

2003	16th Bled eCommerce Conference	Customization as a Business Model for Online Newspapers	Markku Sääksjärvi, Teemu Santonen	The evolving IS literature on business models for digital products assumes that the positive feedback effect will lead to price competition and biased concentration of the market. In theory, this will require companies to either differentiate or customize their products and services. In this paper we propose an empirical investigation of customization as a lock-in business strategy for online newspapers in a homogenous and well-developed market. We explore approaches taken to customization and evaluate their impact on revenue generation of online newspapers. Our empirical tests with data from 42 online versions showed that mainly experienced, nation-wide online newspapers applied customization. We determined two main customization approaches for online newspapers, customer and process oriented customization. Interestingly, only the degree of process customization was an important predictor and moderator of revenue having a significant interaction effect on the impact of the number of both customers and editorial staff on revenue. Contrary to our main hypothesis that customization should help in increasing customer lock-in through personalization or versioning, the majority of online newspapers seemed to concentrate mainly on process customization in order to serve a maximal number of different types of customers and to increase their revenue. The promising positive effects of customization strengthen our belief that customization could be an effective business model for online newspapers.
2003	16th Bled eCommerce Conference	Underpinning the eBusiness Framework - Defining eBusiness Concepts and Classifying eBusiness Indicators	Xander J. de Graaf, Robin H. Muurling	This paper presents a framework for the classification of indicators used to measure ecommerce and e-business. This framework is presented in the so-called E-Business Effect Matrix. It consolidates developments around the widely used OECD framework of readiness, intensity and impact on the company level. The E-Business Effect Matrix visualizes the whole spectrum of e-business effects. It relates e-business techniques with business processes, organizational structures, and business performance for three different dimensions and thereby structures the research fields of 'ICT & Statistics' and 'E-business Effects'. Furthermore, this paper combines material on e-business definitions from statistical and scientific sources into a framework for defining e-business. This framework distinguishes e-commerce from e-business and can be used in discussions on standardization of the definitions national statistical institutes (NSIs) use to inquire e-business.
2003	16th Bled eCommerce Conference	eTrucking: How New Technologies are Transforming the Trucking Industry	Choong Y. Lee	The trucking industry is undergoing an evolution of revolutionary proportions. As American businesses continue to embrace just-in-time manufacturing and distribution methods to reduce inventory levels, smaller and quicker deliveries of goods in the supply chain are essential. A booming economy has increased the demand for transportation services to an extent that finding enough qualified drivers becomes a major challenge. Because of this and many other factors private fleets, full-load and less-than full-load carriers are feeling increasing pressure to adapt to new challenges and possibilities. Supply chain management and fleet management are becoming even more important as customers demand more services from their carriers. Carriers are continuing to embrace satellite tracking and communications technologies as key elements of increasing the productivity of their fleets while also reducing waste and inefficiency at the same time. The introduction of these previous forces has begun to turn the truck driver into a knowledge worker. These drivers just don't drive these big trucks, but they are in continuous communication via e-mail and satellite contact with their dispatcher. The web site has also become an important tool for carriers to facilitate new business relationships and enter new markets. Transportation.com and pnv.com are two important examples of how our carriers are creating web sites that are providing solutions and new potential for all of those involved in the trucking industry.
2003	16th Bled eCommerce Conference	The Price of Convenience: Developing a Framework for Analysing Privacy Sensitivity in the Adoption of Wireless Applications	Grace Ng-Kruelle, Paul A. Swatman, Douglas S. Rebne, J. Felix Hampe	This paper reports a preliminary cycle of structured case analysis of personal privacy sensitivity in respect of wireless applications. This empirical cycle, interposed between the theoretic development of a conceptual framework which we have called the "Price of Convenience" Model (Ng-Kruelle, Swatman, Rebne and Hampe 2002) and a series of socio-technical studies in the field which will form the main body of our research programme, comprises a qualitative content analysis of a sample of reports published within the practitioner and public media over the period 1999-2002. The aim of this cycle of research is testing and refinement of the Price of Convenience model as a conceptual framework for our continuing study.

2003	16th Bled eCommerce Conference	Knowledge Intermediation: New Business Models in the Digital Economy	Ettore Bolisani, Matteo Di Biagi, Enrico Scarso	The upsurge of Internet and e-commerce strengthens the idea that knowledge is the key resource for competitive advantage, because such technologies offer opportunities to acquire and share knowledge with no geographical or temporal limits. Nevertheless, the experience shows that the practical implementation of new business strategies, grounded on the deliberate exploitation of knowledge through the Internet, is a complex issue that requires new managerial tools and roles. This paper examines and discusses emerging business roles that can be referred to as "knowledge intermediaries" online, whose aim is to provide services for retrieving, acquiring, and managing external knowledge resources. After characterising the conceptual features of such business model, based on the analysis of the literature on Knowledge Management and e-commerce, the findings of preliminary case-study research are discussed.
2003	16th Bled eCommerce Conference	Government Promotion of eCommerce through Seed Funding: A Review of the Australian Government's ITOL Program	G. Michael McGrath, Elizabeth More	As in many other countries, the take-up rate of eCommerce in Australian SMEs has been poor. The Australian Government has attempted to address this (in part) through its 'Information Technology On-Line' (ITOL) program – a program that aims to accelerate the adoption of eCommerce through the provision of seed funding to on-line projects proposed by industry-based consortia. Some 81 projects have been funded so far and, in this paper, we review progress to date. While there have been some outstandingly successful projects, others have floundered. Provision of adequate project resources, together with effective change and relationship management, were identified as key critical success factors.
2003	16th Bled eCommerce Conference	eCommerce B2C Research in Context: Policy Capturing, Channel Choice and Customer Value	Harry Bouwman, Lidwien van de Wijngaert	Central in this paper is the question what choices customers make for specific channels (physical channel, mobile or Internet) in an eCommerce transaction processes and by what variables their choice is influenced. We are especially interested in the use of channels to collect specific information, initiate transactions, conclude actual fulfilment and offer after sales services. We argue that channel choice in the transaction process depends on a set of variables related to the availability of the technology to the user, his or her context (mobile or not), the type of product he or she wants to buy (information good, service or product; fast moving or durable), the degree to which the quality of the product can be assessed in advance (experience), the degree of personalization and the level of trust. To test these assumptions we used policy capturing as research methodology. Data was collected among a homogenous group of students knowledgeable and experienced with new mobile and Internet technologies and then analysed using logistic regression. Results show that respondents switch between channels, making use of the Internet in the information phase but for the initiation of transactions, as well as the fulfilment and after-sales stages, physical channels are preferred by a majority. Mobile channels appear to play hardly any role in eCommerce transaction processes. Only the mobile context has a clear relation to the choice in favour of mobile channels.
2003	16th Bled eCommerce Conference	A Design Perspective on Networked Business Models: A Study of Distributed Generation in the Power Industry Sector	Vera Kartseva, Jaap Gordijn, Hans Akkermans	Value chain deconstruction and reconfiguration into new value constellations is a phenomenon impacting many industry sectors. An important strategic issue therefore is the creation and analysis of new networked business models that cut across a variety of enterprise and market actors. In this paper we take up this issue from a design perspective, and consider the construction of networked business models for the emerging case of distributed power generation in the utility industry. We elucidate the role of regulation here: feasibility of new business models in this industry sector appears to be critically dependent on the nature of future regulations even in a so-called 'deregulated' open competitive market. We discuss how our value network modelling approach provides benefits already in a non-quantitative analysis in that (1) it offers a capability to map out new business ideas graphically in a clear and communicable fashion, (2) it clarifies the position of the individual stakeholders in innovative value constellations, and (3) it gives some qualitative directions where critical points and possible opportunities for new business models are to be expected.
2003	16th Bled eCommerce Conference	Fractional Institutional Endeavors and eProcurement in Local Government	Kim Viborg Andersen, Niels Christian Juul, Sara Korzen-Bohr, Jimmy Kevin Pedersen	Although official Danish policy is to increase e-procurement in all public institutions, the push is facing severe challenges. We have surveyed e-procurement in Danish local government (n=152, response of 55%). It shows a reality lacking behind the rhetoric about the "professional shopper" implicit pushed by institutions that aims for increasing e-procurement. Government has decentralized and pushed reforms that contradicts attempt to make coordinated institutional actions. The most frequent use of e-procurement is within the area of seeking information and receiving support. Also, we have found that the larger municipality (measured by number of citizens and budget), the more likely the municipality is not to seek information through digital channels. In the other aspects of eprocurement (ordering and paying goods and services) we have found only marginal use and no correlation with number of citizens and budget.

2003	16th Bled eCommerce Conference	The Board View of Electronic Business Risk	Ernest Jordan, David Musson	The selection and implementation of electronic business initiatives pose challenges to technologists and business unit managers, however this study focuses on the issues that impact corporate board members. They have special responsibilities to monitor the risks faced by the organisation. We outline some of the risks posed by electronic business and discuss the various approaches proposed to deal with them. This paper reports on a study that tests the adequacy of existing Australian standards among other management tools. The development and implementation of a survey of board members is described. The focus is on the perceptions of risks by board members, together with their views on procedures and responsibilities for such risks. Findings suggest three distinct approaches used by boards that are expressed in terms of Australian sporting metaphors.
2003	16th Bled eCommerce Conference	Possible Disintermediation: What Role for Banks in Electronic Invoicing (EIPP)?	Alea M. Fairchild	"Driven by a desire to get paid more quickly, companies are moving more of their invoices and payment to the internet. Businesses care more about faster cash flow than they do about cutting costs." (GartnerGroup, 2001). Electronic Invoice Presentment and Payment (EIPP) is targeted to the needs of corporates and can be integrated with e-marketplaces and B2B financial settlement for bank-neutral global payment services. Its interactive approach to dispute resolution and robust payment options are critical if corporates are to secure the advantages of B2B marketplaces and straight through processing (STP). This research examines the possible role for banks in EIPP, and what might drive bank EIPP adoption. Case studies are examined from industry.
2003	16th Bled eCommerce Conference	The Implications of the Local Configuration of a Standard eProcurement System on the Organisation Power Circuits	Amany R. Elbanna	The paper presents a case study of the configuration and use of a standard e-procurement packaged software. It focuses on reviewing the new business processes that the system introduces. It, then, applies the Actor Network Theory's (ANT) notions of associations and power in order to illustrate that the new business processes introduce a new power circuit effect. In so doing, it aims to provide insight into the performing social and technical network that the newly introduced system constructs. The paper then suggests that the system configuration should not only focus on the technical functionality of the system but it should also consider how the system's new business processes would affect the social, organisational, and political architecture of the organisation and its established performing power networks.
2003	16th Bled eCommerce Conference	eBusiness Transformation Matrix	Colin G. Ash, Janice M. Burn	A model of e-business transformation is developed for ERP enabled organisations, based on the findings of a longitudinal multiple case study. The model is represented as a matrix along three stages of e-business growth. The theory embedded within the matrix recommends that successful ebusiness transformation with ERP occurs when; B2B value propositions are realised through integration and differentiation of technologies, used to support new business models for delivering products and services online. In addition, the management focus evolves through self-service, and empowerment towards extensive relationship building.
2003	16th Bled eCommerce Conference	Establishing eTrust through Humanized Website Design	Milena Head, Khaled Hassanein, Edward Cho	Trust is an essential component for any business transaction, and is particularly critical and challenging in the online environment, which is characterized by a de-humanized interface. In this paper the concept of humanized Website design is introduced as a potential trust instiller with online customers. The validity of this concept is investigated within the framework of an online trust model which distinguishes between product, company and referee trust. An empirical study is outlined, and results are analyzed to determine the effects of Website humanization. Results from this study indicate a significant correlation between human elements in design and trust in an online environment.
2003	16th Bled eCommerce Conference	Preferring Offline Bookings: An Empirical Study of Channel Choice Motives of Online Information Seekers	Jonna Järveläinen	Gaining revenues from e-commerce has proven to be far trickier that could have been expected from the hype in the late 1990's. The majority of online customers are still information seekers, who make their purchases offline. The tourism industry has achieved a competitive advantage over other sectors, since it has been able to transfer more customers online. Therefore, we should examine and learn from the companies in travel business. This paper reports the findings from a study exploring motives behind booking channel choice. For testing eight hypotheses based on media choice theories, a questionnaire was designed and implemented in a Web survey for customers visiting the Web site of a passenger cruise company. The primary reasons for not using the Internet for travel reservations were: perceiving the booking so complex that discussion with customer service was required, having many special arrangements included in the booking, and distrust in finding the cheapest alternative in the online booking system. Online booking was found to be quick, easy, and especially suitable for simple bookings with no special arrangements. The probability of making a reservation online increased when a customer gained more experience of online shopping.

2003	16th Bled eCommerce Conference	Uses and Attitudes of Young People toward Technology and Mobile Telephony	Sandra Sieber, Josep Valor Sabatier	This paper aims at showing how young people are developing new and innovative ways of interacting using technology. Previous literature shows that technology adoption does not only depend on the technology per-se, but also on situational and contextual issues. Regarding young people, mobile telephony has been claimed to change their lifestyles, although only scarce empirical evidence exists. We have conducted an empirical study in which we first analyze the existence of difference in technology adoption, acquisition, and usage of technology and mobile telephony of young people in general and those that are online, finding that there are some significant differences in some dimensions. Next, we carried out the same analysis differentiating between those people that assess themselves as technology savvy and technology inexperts, finding that their patterns of mobile phone usage vary significantly along all analyzed dimensions
2003	16th Bled eCommerce Conference	Business Models for Peer to Peer Initiatives	Ian MacInnes, Junseok Hwang	This paper examines recent peer to peer initiatives in the context of the business models literature. There are three types of studies on business models: focused studies on success factors, multifactor studies of success and failure, and studies identifying the components of business models. The most common factors used to analyze business models are: revenue sources, potential benefits to actors, enabling technologies, security, and behavioural changes. Of the four cases analyzed the collaborative model of Groove and the distribution and caching model of Kontiki appear to have greater commercial promise than the file sharing model of KaZaA and the distributed processing model of SETI@Home.
2003	16th Bled eCommerce Conference	A Client-Side Business Model for Electronic Privacy	Dawn Jutla, Peter Bodorik	Strengthening the user perception of privacy and trust on the Internet will require userfocused technological approaches, enforceable privacy laws, and business interventions. We propose a novel user-focused business model for privacy with a supporting client-side e-privacy architecture. The e-privacy business model is detailed in terms of target markets and stakeholders, value or revenue model, and privacy information and transaction flows. The target markets and stakeholder descriptions capture two key requirements of heightening user control, and placing privacy in a trust position. A value model stacked towards the user perspective is necessary for any e-privacy business model to succeed. Finally, a multi-agent architecture, based on the P3P platform, completes our proposed e-privacy business model.
2003	16th Bled eCommerce Conference	An Architecture for Decision Support on Portfolio Design	Peter H. M. Jacobs	Though organizations have more and more evolved into loosely knit structures and corporate alliances have therefore become central to most business models, only very few organizations systematically track the performance of their alliance portfolio. This paper is an exploratory paper aiming to present an architecture for decision support systems for the design of such a portfolio. In this paper we start with an introduction on the complexity of measuring portfolio performance. We will then advocate the use of simulation as an inquiring system best suited for the design of an alliance portfolio. Since the support we intend to provide is aimed at the actual operational business level, sincere challenges are faced for an underlying e-architecture. We describe such an architecture, and propose a transformation of decision support systems from stand-alone, office-alike packages to distributed well-interweaved services. This paper ends with the outline of a case on capital investment portfolio optimization. In this case we focus on the potential benefit we can make in choosing more advanced techniques for portfolio design.
2003	16th Bled eCommerce Conference	A Design Methodology for Trust and Value Exchanges in Business Models	Jaap Gordijn, Yao-Hua Tan	In this paper we introduce a design methodology for business models from two perspectives: the value web perspective and the trust perspective. The value web perspective models the creation, distribution, and consumption of things of economic value in a network of multiple enterprises and end-consumers. The goal of the methodology is two-fold: (1) to create a common understanding of a business model for all actors involved, and (2) to assess the potential profitability of a business model. The trust perspective describes how value webs can be expanded with trustworthy control procedures to provide for each actor sufficient confidence in each other to enable trading. We present a first outline of a formal theory to design trustworthy control procedures in the setting of the e3value methodology.
2003	16th Bled eCommerce Conference	Internet Strategies for Established Retailers: Five Case Studies from New Zealand	Bill Doolin, Bob McQueen, Mark Watton,	This paper reports the findings of research on the strategic responses of established retailers to the challenges and opportunities offered by the Internet and the development of electronic commerce. The paper identifies a range of factors that influence the adoption of Internet retailing and presents a simple framework for categorising Internet strategies based on five case studies of New Zealand retailing companies.

2003	16th Bled eCommerce Conference	A Secure Electronic Murabaha Transaction	Mansour A. Al-Meaitheer, Chris J. Mitchell	Conventional credit card transactions are not consistent with Islamic principles, as exemplified by the Islamic banking system and the 'Murabaha sale'. Thus, if Islamic principles are to be applied to e-commerce, where credit card transactions are the norm, a new and secure electronic payment process is required. In this paper we present a method for secure electronic Murabaha transactions. After introducing the notion of Murabaha sale within the Islamic banking framework, we describe a general model for a secure electronic Murabaha transaction, and then consider the associated security risks. Security requirements are then identified for a secure electronic Murabaha transaction. We then present the Secure Electronic Murabaha Transaction (SEMT), designed to address the identified security requirements. Finally, we analyse how the proposed protocol matches the identified security requirements.
2003	16th Bled eCommerce Conference	Online Consumer Behavior: A Review and Agenda for Future Research	Christy M. K. Cheung, Lei Zhu, Timothy Kwong, Gloria W.W. Chan, Moez Limayem	The topic of online consumer behavior has been examined under various contexts over the years. Although researchers from a variety of business disciplines have made significant progress over the past few years, the scope of these studies is rather broad, the studies appear relatively fragmented and no unifying theoretical model is found in this research area. In view of this, we provide an exhaustive review of the literature and propose a research framework with three key building blocks (intention, adoption, and continuance) so as to analyze the online consumer behavior in a systematic way. This proposed framework not only provides us with a cohesive view of online consumer behavior, but also serves as a salient guideline for researchers in this area. We conclude our paper with a research agenda for the study of online consumer behavior.
2003	16th Bled eCommerce Conference	Developing and Implementing eAssessment Strategies in Virtual Learning Environments	Marianna Sigala	eLearning collaborative pedagogy assumes that interaction is important for successful courses, yet questions exist regarding the nature and extent of the interaction and its effects on student performance. Although the majority of past studies focus on students' perceptions of the quality and quantity of their interactions and the benefits they gained in e-learning, no research has examined the impact of online student participation on their performance. This study fills in this gap by proposing and testing a model for examining the relationship between online performance and students' type/level of participation in online forums. Findings provide suggestions for developing effective elearning.
2003	16th Bled eCommerce Conference	Transformation in the Pharmaceutical Industry – Developing Customer Orientation at Pharma Corp	Rainer Alt	The pharmaceutical industry is in the midst of a fundamental transformation. Institutional regulations that have been in place for decades are being removed and competitive pressures force pharmaceutical companies to adopt customer-oriented strategies. Information technology which has traditionally been applied to many processes in this industry is an important enabler for the interaction with key customer segments such as physicians and patients. However, developing and transforming customer relationships is merely a technological undertaking. Changes are required regarding strategy, processes as well as the systems architecture. To develop an integrated customer relationship management strategy this research draws on elements from established business redesign. The emphasis is on portals that bundle services for the patient's and physician's customer processes. This architecture framework has been elaborated in cooperation with nine companies and applied at a major pharmaceutical company.
2003	16th Bled eCommerce Conference	Understanding the Important Issues of Concern in the Adoption of an ASP Application Model	David Sammon, Des McAuley, Frederic Adam	The term Application Service Provider (ASP) emerged in 1998 and since then the ASP Model has experienced varying degrees of adoption success by organisations. A school of thought now exists that is further facilitating the growth of the ASP market. It highlights the move away from selling software (licensing model) to providing software services (rental model) for today's e-business climate, and in general, blurs the distinction between the software and services industry. Although, this represents a paradigm shift in application delivery, the market is still in an embryonic stage. With this in mind, organisations need to assess their suitability for ASP Model adoption and ASPs should understand the client's important issues of concern, to facilitate future growth in the market. Therefore, the objective of this paper is to lay the foundations for an ASP Adoption (ASPA) Model through presenting a synthesis of the important issues of concern, focusing on technical/business drivers, benefits of adoption, barriers to adoption, and future trends in the ASP market.

2003	16th Bled eCommerce Conference	Using the Service Encounter Model to Enhance Our Understanding of Business-To-Consumer Transactions in an eEnvironment	Nelson Massad, Kevin Crowston	The aim of this paper is to provide an alternative perspective to enhance our understanding of the transactions between customers and service providers in an electronic environment. The service encounter literature is well established in the Marketing field and provides an alternative model to explore online business-to-consumer transactions. The taxonomy of antecedents of satisfaction developed from this model has been tested over time, across respondents (i.e., customers' perspective vs. employees' perspective), and across different settings. This taxonomy, however, has been mostly restricted to the bricks-and-mortar environment. Based on the analysis of a pretest sample of customer-reported online experiences, the taxonomy has the potential to enhance our understanding of business-to-consumer online transactions. The next step is to carry out a complete study in order refine the taxonomy to account for the electronic context.
2003	16th Bled eCommerce Conference	Conceptual Modeling of Business Networks and Business Strategies	Robert Winter	The sophistication of technical and organizational networking enables not only a broader range of business networks and business strategies, but also allows for their faster adaptation to innovations. By increasing the degree of formalization of strategy modeling, model consistency can be enhanced and specifications can be reused in subsequent business engineering phases like process (re-)design and information systems development. Modeling techniques for business network specification and business strategy specification are outlined and notations are presented. Experience from applying these techniques in financial service companies is summarized.
2003	16th Bled eCommerce Conference	Collaborative Product Representation for Emergent Electronic Marketplace	Jingzhi Guo, Chengzheng Sun	A B2B e-marketplace is emergent with product representation requirements in continuous changes. To capture the emergence, this paper proposes a novel collaborative product representation approach that collaboratively generates new product representations in real-time both at the sides of sellers/buyers and e-marketplace providers. The approach employs a well-defined product representation construct that decomposes each representation into a set of hierarchically arranged vector concept-based annotations and sub-structures. The use of vector-based concepts achieves flexibility, exactness and evolvability of the whole product representation system.
2003	16th Bled eCommerce Conference	Critical Success Factors for Stock Brokerage over the Internet: An Exploratory Study in the Brazilian Market under the Perspective of the Investor	Allan Marcelo de Campos Costa, Luiz Antonio Joia	The aim of this study is to investigate, using the perspective of the investor, the determinant factors for the success of the stock brokerage process over the Web, using financial portals on the Brazilian Internet. A framework of the online stock trading process is presented in order to compare the traditional form of stock brokerage with that made possible by the Internet and to discuss some of the issues regarding the intermediation and desintermediation that occurs during the process. The conclusions were obtained from a survey, conducted with Brazilian investors that operate using Internet stockbrokers for the intermediation of their stock operations. The findings showed that the Critical Success Factors for online stock trading in the Brazilian market relate more to fundamental issues, like ease of use, security and brokerage costs, than with more sophisticated services, like active monitoring of stock prices. At the same time, areas for further research will be identified and proposed.
2003	16th Bled eCommerce Conference	Real Time Wireless eCommerce for Agricultural and Forestry Operations	Per Bjarne Bro, Narciso Cerpa, Samuel Ortega-Farías	This paper describes an application of real time data capture and wireless transmission of meteorological data used by agricultural administrators to support operational decisions such as irrigation scheduling and pesticide application. Forestry companies need such information for managing operations during the fire season. The system architecture based on distributed wireless data communication using cell phone components is selected as the required interface and software drivers are implemented to connect different brands of meteorological data stations with a GSM cell phone and thereby insulate the variations in technology, transmission and storage schemes from the overlying database and application software layers.
2003	16th Bled eCommerce Conference	Mobile Services for Group Decision Support	Jerry van Leeuwen, Hans van der Heijden	In this paper we study a new role for smart mobile devices: their potential assistance in group-based decision making. Assuming that smart devices implement wireless short range scanning technology, they have the capacity to scan other devices and by doing so, group members can exchange information and decision preferences with other group members. We introduce four mobile services that exploit this technology for the purpose of group decision making: information gathering, information matching, preference gathering, and preference matching. The paper continues by outlining to what extent these services will have value for specific types of group tasks. We conclude that information gathering and matching are appropriate for simple tasks and problem tasks, and preference gathering and matching are appropriate for judgement tasks and "fuzzy" tasks.

2003	16th Bled eCommerce Conference	Exploring the WISP Industry - Swiss Case Study	Giovanni Camponovo, Mark Heitmann, Katarina Stanoevska-Slabeva, Yves Pigneur	Wireless Local Area Networks (WLAN) are receiving considerable attention in the industry and are perceived as a possible disruptive technology, capable of posing a credible threat to the dominance of mobile network operators and their 3G networks. In spite of this, the business aspects of public WLANs have been neglected by the research community. The objective of this paper is thus to investigate the use of WLAN to offer wireless services from a business point of view. The study is based on the example of current supply of WLAN services in Switzerland. By investigating different kinds of WLAN service providers and analyzing their business models through mini case studies, the paper provides a deeper insight into business aspects of public WLANs.
2003	16th Bled eCommerce Conference	Mobile Banking and Brokerage Systems – Managing IS Risks in the Beginning 21st Century	Elke Wolf	The beginning 21st century makes high demands on industries dealing with new technologies. Starting from an outline of new challenges of the 21st century, the situation of banks being particularly exposed to these conditions is described. The mobile banking channel is focused as one example of banks' business processes involving new technology. 24 banks are identified from the list of the 100 largest German banks that offer mobile services and an empirical study is conducted in order to explore their first experiences with mobile banking services. These telephone interviews are the first of a three-step research process. For a more in-depth analysis of banks' IS risks, face-to-face interviews will be conducted in a second step. The research process will be finished with selected case studies about requirements for new methods and tools of banks' IS risk management. This paper presents selected results of the first research step. One of the most important aspects for all their decisions has been the high risk dealing with new technology and a lack of established IS risk management guidelines. Examples of such operational risks are considered and a variety of different existing approaches is discussed and analyzed with respect to their potential to minimize risks, though being not explicitly dedicated to risk management. However, new risk management approaches are treated by the industry with a certain reserve. On the basis of that analysis, suggestions for further research are made to develop a practicable operational IS risk management approach.
2003	16th Bled eCommerce Conference	Network Formation for Provision of Mobile Information and Entertainment Services	Carleen F. Maitland, Elisabeth A.M. van de Kar, Uta Wehn de Montalvo	The mobile telecommunications industry is undergoing rapid change, which is increasing the interdependency of firms in the sector. This trend increases the likelihood that mobile information and entertainment services will be delivered through inter-organizational networks of firms. These networks are the topic of this research. In this research we examine network formation and the influence of business models on this process. Using data from five case studies of mobile service networks, we examine in particular the influence of both revenue models and network membership benefits on network formation. The results demonstrate a link between business models and network formation. We find that at this time the benefits of network membership appear to have a greater influence on network formation than do revenue models. In conclusion we discuss the implications of these findings for research on both network formation and business models, as well as managerial implications.
2003	16th Bled eCommerce Conference	Trust Generation through Extralegal Mechanisms: Reputation as a Valued Asset in eMarkets	Matteo Di Biagi	The scope of this paper lies in the study of the trust factor within electronic transactions. Considerable importance has recently been given to this factor since the Net limits direct interpersonal relations and often does not even allow recognition of the opposing party. The risks of electronic commerce are also often highlighted, demonstrating that the international legal mechanisms currently in place are inefficient. Using this assumption as a starting point, the main risks of electronic markets will be highlighted and the sources of trust proposed in the literature will be discussed. The main objective, however, will be to analyze the extralegal mechanisms- in particular the creation of reputation trust.
2003	16th Bled eCommerce Conference	The Acceptance of Online Grocery Shopping	Sherah Kurnia, Ai-Wen Jenny Chien	The Internet has been increasingly used to facilitate online business transactions between business entities and consumers for various products and services. One of the applications that has received much attention in the last few years is Online Grocery Shopping (OGS). There is, however, no concrete evidence that OGS has been widely adopted as initially predicted. To enrich the existing studies in this context, which are currently limited, this paper explores the Australian consumer's perception of Online Grocery Shopping in order to identify some factors that may foster or hinder its acceptance. The Technology Acceptance Model (TAM) is employed to provide the theoretical foundation for this study. Based on the empirical data collected from a survey, the findings demonstrate the strength of the TAM in exploring the acceptance of OGS in Australia. In addition, the visibility of OGS was also found to be an important factor for its acceptance by the community.



2003	16th Bled eCommerce Conference	The Irish eHealth Sector	Fabian Armendariz	As in many other sectors, information technology has permeated into the Health Sector. This has brought about changes, some intended, some unintended, some welcomed, some not as much. People may know what they want from a healthcare system, but when they face a shift in the way health services are delivered such as the one that follows the eHealth initiative in Europe, they may be unclear about what to expect. This paper reviews how the initiative originated at European level and how it spread to the Irish health sector.
2004	17th Bled eCommerce Conference	Complexity, Context, Commoditisation And Cooperation: Exploring Emerging XML-Based Inter-Organisational Systems	Martin Fahy, Joseph Feller, Patrick Finnegan, Ciaran Murphy	Inter-organisational systems (IOS) have traditionally been characterised as EDI-based 'hub and spoke' models such as those connecting grocery retailers or large manufacturers with their suppliers. Increasing environmental complexity and technological innovation have led some organisational networks to explore more dynamic IOS models. This paper investigates emergent IOS models in three data intensive industry sectors (telecommunications, news media, and financial services). The findings illustrate that the complexity of data consumption patterns is driving increased interdependence within value webs requiring the co-operative development of context sensitive value exchanges and commodity-like IOS infrastructures.
2004	17th Bled eCommerce Conference	Towards A Modelling Tool For Designing Control Mechanisms In Network Organisations	Vera Kartseva, Jaap Gordijn, Yao-Hua Tan	Contracts and organizational controls to monitor contract compliance are important tools to enhance trust in a fair business transaction in network organisations and electronic commerce in general. In this paper, we propose a design methodology for such contracts and supporting controls, utilizing inter-organisational value models. We argue that a framework for designing control mechanisms should include three steps: design of an inter-organizational value model, analysis of possible violations of contractual obligations underlying this value model, and design of control mechanisms to detect or prevent such violations. It is shown how the e3-value methodology, which was developed to design business value models, can be extended to model obligations of parties. We use concepts and ideas from deontic logic (the logic of obligations and permissions) to develop an extension of e3-value called e3-value+. The e3-value+ approach is a design tool for modelling violations of obligations and control mechanisms to prevent and correct these violations, which can be used in contract drafting and contingency planning for inter-organisational collaboration in network organisations.
2004	17th Bled eCommerce Conference	Organisational Prerequisites For Application Service Provision Adoption	David Sammon, Sarah Vaughan	The term Application Service Provision (ASP) emerged in 1998 and since then the ASP Model has experienced varying degrees of adoption success by organizations. This paper presents the results of a study of four organizations that have adopted the ASP Model. Collectively, these organizations have experienced many problems and solutions in relation to ASP adoption and these experiences are captured in a set of organizational prerequisites. The researchers believe that these prerequisites could potentially be used by organizations to internally assess and identify issues that require attention prior to ASP adoption.
2004	17th Bled eCommerce Conference	Adoption Of eCommerce Terminology	Marina Katic, Kostadin Pusara	Realizing that digital technology has become a key factor of economic growth, it is necessary for South East European countries (where Serbia & Montenegro also belong to) to start overcoming numerous e-commerce barriers on their way of integrating into European Union. One of the obstacles they are encountering is the language barrier. The first problem is how to understand the meaning of certain highly specialized terms in the field of e-commerce. Solution lies in good unilingual dictionaries. Another problem is how to find the equivalent in mother tongue for abundance of quite new words and expressions. This can be solved by well concised bilingual vocabularies. However, neither unilingual vocabularies in the field of e-commerce nor bilingual vocabularies are published to greater extent. Only few have focused on the language of e-commerce. This is why the terminology of e-commerce is to be carefully collected and explained, standardized and finally adopted. Finding proper solutions for above-mentioned problems would enable South East European countries to create a proper environment for digital technology, completely in line with European standards.

2004	17th Bled eCommerce Conference	Evaluating eCollaboration: Toward A Positioning Map For Supply Chain Integration	Timothy McNichols, Louis Brennan	E-business systems have the potential to transform supply chain relationships into integrated collaborative networks. However many firms are hesitant to adopt e-business systems, and in particular collaborative supply chain initiatives, as the benefits often fail to fulfill the promise. To reduce this anomaly, firms need to realize the successful creation and implementation of a collaborative supply chain system is more complex than other inter-organizational systems (IOS). Decision makers need to evaluate the different options for integrating the supply chain and determine the most appropriate partners. Although previous studies have assessed e-business and IOS, few offer a predictive model that can assist decision makers with the selective deployment of an integrated supply chain system. Based upon previous research and empirical data, the authors have devised a positioning framework for prospective adopters to illustrate the potential impact of a collaborative supply chain system. This framework enables a positioning of current supply chain partners, based upon pre-adoption factors, to identify the potential level of impact achievable. An EU-Funded project, Co-Improve, provided the empirical setting to test this framework. With e-business evaluation still in its infancy, this new framework can assist managers with the complex task of instigating and implementing e-supply chain initiatives.
2004	17th Bled eCommerce Conference	The House That Jack Built: eBusiness Models For SMEs	Jussi Nissilä, Lauri A.T. Salmivalli, Reima Suomi, Jussi Puhakainen	The purpose of this paper is to study the feasibility of business models for small and medium sized enterprises (SMEs). SMEs are a demanding field of research because of their heterogeneous nature. SMEs should not be considered as smaller versions of large corporations, but instead they face somewhat different challenges. The business strategies of SMEs may vary greatly from the ones of larger companies, especially in their early growth phase. This article reports a business model planning case in an SME. First results indicate that 1) contemporary eBusiness model methods are largely founded on position or resources-based strategy approaches, and 2) current models support only weakly simple rules -based strategy thinking.
2004	17th Bled eCommerce Conference	Online Supermarkets: Emerging Strategies And Business Models In The UK	Irene Yousept, Feng Li	The Internet has facilitated the emergence of new strategies and business models in several industries. In the UK, significant changes are happening in supermarket retailing with the introduction of online shopping, especially in terms of channel development and coordination, business scope redefinition, the development of fulfilment centre model and core processes, new ways of customer value creation, and online partnerships. In fact the role of online supermarket itself has undergone some significant changes in the last few years. Based on recent empirical evidence gathered in the UK, this paper will illustrate current developments in the strategies and business models of online supermarket retailing. The main evidence has been collected through an online survey of 6 online supermarkets and in-depth case studies of two leading players. Some of the tendencies are comparable to what happened in retail banking with the introduction of Internet banking, but other tendencies are unique to the supermarket retailing industry. This is a rapidly evolving area and further studies are clearly needed.
2004	17th Bled eCommerce Conference	What Prevent B2B eCommerce Adoption In Developing Countries?: A Socio-Cultural Perspective	Savanid Vatanasakdakul, William Tibben, Joan Cooper	It is widely believed that B2B e-commerce will help firms in developing countries to reduce cost and to improve their access to global market. Yet, developing countries are still some way from success in their adoption of B2B e-commerce. This paper explores social and cultural perspectives that impact on B2B e-commerce adoption in developing countries. Interviews were conducted with key informants from various industries in Thailand. Some common problems related to social and cultural issues faced by industries are presented. It was found that even though B2B e-commerce was implemented in many firms, its use was still very limited. Firms do not feel that they have benefited much from B2B e-commerce adoption. The problem identified is that the immediate social and cultural expectations of e-commerce users in Thailand are not being met by e-commerce technologies. It appears that technologies that have evolved from Western society are designed to meet needs that do not necessarily exist in the commercial environment of Thailand.
2004	17th Bled eCommerce Conference	A Theoretical Approach To Trust Services In eBusiness	René van Buuren, Patrick Strating, Edward Faber	In this paper we discuss trust services in e-business. Although the importance of trust for business transactions is generally recognized, the actual mechanism of trust is not well understood. This hampers the development and use of effective trust services, aiming at supporting business transactions between partners all over the world. In this paper, we model the amount of uncertainty in a decision process as a function of information. Trust is unambiguously linked to the remaining uncertainty and information provisioning. Trust services are defined as services aimed at reducing uncertainty through providing relevant information. Finally, a categorisation of trust services based on different types of information and phases in a business transaction is presented.

2004	17th Bled eCommerce Conference	The Role Of Social Capital In Managing Relationships With eCommerce Suppliers	Kai Riemer	Contemporary E-Commerce solutions are often developed and delivered in inter-firm setups that involve various business partners. Being characterised by innovative, illstructured tasks and using new technologies to develop new business models and services, E-Commerce projects and the subsequently resulting relationships with business partners are demanding and challenging to manage. Surprisingly, project and partner management issues in E-Commerce remain largely unaddressed. This paper takes an inter-firm perspective and addresses the social dimension of E-Commerce relationships. Social capital theory, referring to the value of social relationships and networks, is used to guide this research. Based on findings from case study research, different types and episodes of E-Commerce supplier relationships are distinguished, each calling for a different role of social capital as the basis for effective inter-firm collaboration. By applying social capital theory the study enhances the understanding of E-Commerce as a network-based business as well as the general understanding of the social aspects in relationship management, which to date is largely dominated by concepts like trust and culture. The paper presents a comprehensive framework of social capital in E-Commerce relationships and points out some management implications.
2004	17th Bled eCommerce Conference	A Click And Bricks Strategy For eGovernment	Murray Scott, William Golden, Martin Hughes	Two of the central challenges of e-government are the need for 'joined-up' government through agency collaboration, and the need to provide 'citizen-centred' government, where services and information are integrated at the point of delivery. Electronic service delivery provides the hoped for panacea to enable not only administrative efficiencies in the functions of government, but also services that are centred on the needs of the citizen. The implementation of e-government however, presents challenges regarding the achievement of inter-agency collaboration and highlights the importance of developing multiple access channels. This paper reports from an in-depth case study detailing first, the strategy the Irish government adopted for electronic service delivery and second, provides detailed analysis from the pioneering efforts of an individual county council into agency collaboration and a unique method of service provision. Two survey questionnaires conducted with staff of the county council and citizens of the county, reveal critical success factors in developing inter-agency collaboration and raise important concerns expressed by citizens into data privacy, social inclusion and the digital divide.
2004	17th Bled eCommerce Conference	A Short-Form Measure Of Attitude Towards Using A Mobile Information Service	Mark Ogertschig, Hans van der Heijden	The psychometrical properties are studied of a scale that measures attitudes regarding mobile information services. Starting point is an attitude measure from an earlier research project, in which the HED/UT scale was used to capture hedonic and utilitarian value of an information service. The research design for the new project involved a crosssectional survey, and data was collected using an online survey tool. The psychometric analysis is based on a sample of students and non-students (total N = 125). Based on the analysis, we propose a new, short-form version of the attitude scale. It contains two subscales of five items each, is available in two languages (English and Dutch) and can be used by other researchers for further refinement.
2004	17th Bled eCommerce Conference	An Empirical Exploration Of Trust And Risk Associated With Purchasing At Electronic Marketplaces	Tibert Verhagen, Yao-hua Tan, Selmar Meents	In this paper we report on a study into the relationships between consumer perceptions of risk and trust and the intention to purchase at a C2C electronic marketplace. Distinguishing for electronic marketplace settings is that consumer behavior is subject to perceptions of both selling party and the institutional structures of the intermediary operating the system. Building upon the well-established literature of trust we consider the concepts of institutional trust and party trust. We extend this categorization by introducing the concepts of institutional risk and party risk. Next, we adopt the process of measurement instrument development as put forward by Churchill (1979). We develop measurement instruments for institutional trust (3 items), institutional risk (4 items) and party risk (4 items). All measurement scales contain acceptable alphas and are unidimensional. An empirical study is applied to explore the relationships between the risk and trust types and consumer purchase intention. The results reveal significant, direct effects of party trust, institutional trust and party risk. The paper concludes with general observations and recommendations for further research.
2004	17th Bled eCommerce Conference	Integrating Existing Enterprise Systems With Workflow	Patrick Rushe, Jeanne Stynes	Reducing costs and reducing time to market are two major keys to survival in the software market. Workflow reduces costs and time dramatically where applications involve the passage of work between recipients in order to meet certain business objectives. New projects in this area often use workflow technology. However, workflow's applicability is often overlooked where developers are working on maintaining or upgrading existing systems. This paper discusses the work involved in integrating an existing system with a workflow management system, and examines the benefits of incorporating workflow into existing systems.

2004	17th Bled eCommerce Conference	The Implementation Of ICT In Public Sector Organisations. Analysing Selection Criteria For eGovernment Projects	Maddalena Sorrentino	Taking as a starting point the recent approval of 138 co-financing proposals put forward by numerous Italian public bodies within the context of a national e-government plan, the article poses the question of whether these types of initiatives are really likely to unleash mechanisms capable of improving organisational performance. The evaluation criteria adopted in the course of the selection process are analysed on the basis of a model elaborated by Soh and Markus (1995). The aims are: to carry out a general assessment of the role attributed to information and communication technology (ICT) in the modernization of the public sector and to draw some conclusions from this progress towards the realization of e-government.
2004	17th Bled eCommerce Conference	Governance, Leadership, And Management In Adaptive And Inventive Digital Communities: A Research Agenda To Reduce Waste In Graduate Education	Richard T. Watson, Marie-Claude Boudreau, Martina Greiner, Donald Wynn, Paul York, Rusen Gul	Building on transaction cost economics, this work describes the four different forms of communities and introduces transaction benefits as a means of explaining their existence. A research project to investigate governance, leadership, and management in two of the four forms of communities, adaptive and inventive, is described. It is argued that these digital communities are a way of engaging graduate students in wealth creation and thus 'waste' in graduate education can be reduced.
2004	17th Bled eCommerce Conference	Hybrid Organization In High-Tech Enterprise	Roberta Lamb, Elizabeth Davidson	This paper describes research-in-progress that examines the dynamics of hybrid R&D organizations in high-tech industry, and compares them to hybrid research organizations in academia. Our preliminary definition of "hybrid organization" is based on funding: it is an enterprise that receives revenues from commercial activity (in goods and/or services), but that primarily sustains its R&D work through competitive grants and awards. Hybrid organizational forms have been studied in academia, but there is very little literature on industry hybrids. Through prior research, we have encountered several firms that we would call industry hybrids, and in our view, this finding demands further investigation. Therefore, we have launched a pilot study to characterize the "industry R&D hybrid" as an emergent organizational form. This line of inquiry explores the possibility that these hybrid forms are viable and legitimate ways of organizing R&D activities over the long term, and not simply project-based collaborations among independent firms, immature forms of the commercial firm, or corrupted forms of the academic research unit. Our study will begin to elucidate this possibility in ways that may inform policy-making and strategic planning, not only within industry and academia, but also at regional and federal levels.
2004	17th Bled eCommerce Conference	Open Source Software And Open Content As Models For eBusiness	Roger Clarke	The search for viable eBusiness models continues. But important information is being overlooked. Discussions of open source software all too often focus on the limited context of Microsoft appearing to feel threatened by what it portrays as unbusinesslike competition from Linux and OpenOffice.org; whereas that debate is merely one small facet of the whole. Moreover, in addition to software, a great deal of text, image and sound content is readily available, rather than being constrained by tight copyright clauses. Because discussions have been too superficial, too little of the business world has grasped how open models are working in those organisations that have adopted them. Their experiences draw attention to several key assumptions that are inherent in conventional economic models, but that are not applicable in these new markets. Rather than being merely unworldly and communitarian, open source and open content herald a new wave of business activity that transcends naive economic rationalism, and embody implications for business models that deserve serious study by eBusiness leaders.
2004	17th Bled eCommerce Conference	Strategic eHealth Planning In Healthcare Organisations In New Zealand: A Telemedicine Perspective	Nabeel Al-Qirim	This research reviewed the health IS (HIS) strategy of the New Zealand government and highlighted different gaps in this strategy, as raised by the different stakeholders involved in this strategy. In order to address such gaps, the government provided different Critical Success Factors (CSFs) for the successful implementation of the national HIS strategy. This research introduced the telemedicine technology, as one of the solutions for the HIS strategy with an objective to deliver integrated healthcare services to rural communities specifically. The research assessed the strategic importance of telemedicine by highlighting its Strengths, Weaknesses, Opportunities and Threats (SWOT) to healthcare providers. The research utilised the portrayed HIS strategy and the CSFs to portray a strategy for telemedicine integration in New Zealand taking into consideration its SWOT. The developed CSFs are of strategic importance to healthcare professionals, researchers and policymakers interested in integrating telemedicine in healthcare delivery at the national level in New Zealand and elsewhere.

2004	17th Bled eCommerce Conference	Developing Effective Multidisciplinary, Niche-Market Education: A Study Of eBusiness Programs In The Asia-Pacific Region	Elsie S. K. Chan, Paula M.C. Swatman	Universities have gradually moved toward a fee-for-service mode of operation over the last decade. Offering new academic programs which will attract increasing student numbers is ever more important to universities and this, in turn, requires a greater awareness of market needs and the positioning of educational offerings. A theory-based study of the literature on new service products led to the development of the New Educational Service Product Offerings (NESPO) model for universities offering such multidisciplinary, niche-focused degree programs, which forms the basis of the research project reported here. This paper begins by considering the literary foundations of the model. Using a multiple case study of eBusiness programs in the Asia-Pacific region over the period 2000-2003, it then analyses the findings of the cases, determining whether the universities surveyed were making use of the concepts of new service product development in developing their eBusiness educational programs. Finally, the paper considers whether (and to what extent) these findings are applicable more widely to a range of niche-market, multidisciplinary degree programs.
2004	17th Bled eCommerce Conference	Purchase Frequency And Transaction Profitability: An Empirical Investigation Into The Brazilian Home Appliance eRetailing Sector	Luiz Antonio Joia, Paulo Sanz	The scope of this paper is to explore the transaction profitability of frequent and sporadic buyers in the Brazilian e-retailing home appliance market. Concepts in relationship marketing literature stressing the impact of purchasing frequency on customer transaction profitability, as well as recent academic research challenging this approach and pointing out the importance of sporadic clients, are analyzed. This paper uses quantitative evidence drawn from empirical investigation in a digital company to show that greater frequency of purchases does not always lead to greater transaction profitability. Qualitative evidence also drawn from the firm under analysis and regarding its managerial approach, suggests that customer transaction profitability is related to its marketing strategy. Using data triangulation, it can be concluded that the benefits of customer retention in the e-retailing realm would only seem to be interesting for firms truly oriented to their clients. Implications are presented, enabling practitioners and academics to grasp fully the real value of frequent and sporadic clients.
2004	17th Bled eCommerce Conference	E.M.P. As Enabler Of New Organisational Architectures: An Italian Case Study	Cecilia Rossignoli, Lapo Mola	The opportunity for organisations to manage their own processes using electronic means has lead to the development of new inter- and intra-organisational relationships and consequently to the network firm phenomenon (Fulk, De Sanctis, 1995; Powell, 1990 ; Malone, Yates, Benjamin, 1987; Prager, 1996). Business to Business (B2B) and electronic marketplaces (EMP) are assuming an ever-increasing role in the context of inter-organizational relationships, especially in the area of information systems. In this paper, the authors aim to show how B2B marketplaces have a significant potential impact on the structure of channel relationships and IT management arrangements. For this purpose an Italian example of an EMP called Tilesquare was analysed where the development of the digital market and all the connected technologies has brought about the creation of a new type of organisation. This paper studies this new organisational scheme in the light of Transaction Cost Theory (TCT). In the context of marketplaces, Tilesquare is a particularly important case from the points of view of both the organisational integration of the various integrated participants in the digital value chain (all the possible actors of the value chain of the building and furnishing material industry are present in the market) and of the commercial coverage represented by the various participants located in different countries all over the world and integrated in the platform. IS theory traditionally investigates these phenomena from a Transaction Cost Theory (Williamson, 1975) point of view. On the contrary, the authors of this paper have taken into consideration the limitations of this approach by showing how the Strategic Network theory could provide a useful framework in order to understand the new phenomena that are distinguishing some industries. To do this, the research work of Christiaanse and Markus (2002), who have worked on new organizational assets and the development of B2B in an EMP context, has been used.

2004	17th Bled eCommerce Conference	New And Emerging Business Models For Online News: A Survey Of 10 European Countries	Cornelia C. Krueger, Kornelia van der Beek, Paula M.C. Swatman	The online music and news markets have changed significantly and fundamentally over the past few years, as more and more new players – many of them originally from other sectors – enter the market space of the original media companies. While online news venues have been available for quite some time, the major tragedies and news events of the past few years have highlighted their ability to provide immediate, constantly-updated information (Emmer et al., 2002). In this paper we describe the current state of play in the online news industry in ten European countries, as at May 2003. The findings are based on the first two phases of a three-phase, European-Commission-funded market survey. In the paper we consider in greater detail the Internet business models of these companies. After initially introducing some of the literature in this field and discussing the justification for our chosen research approach, we describe our research design. We then report the findings from the first two phases of the project – the “Expert talks” and our web-based survey of the online news industry. Finally we identify the key driving factors for online news today: the new competitive environment, the appropriate payment systems, the focus on core competences, end devices and the consumers.
2004	17th Bled eCommerce Conference	The Public WLAN Market And Its Business Models - An Empirical Study	Amar Shubar, Ulrike Lechner	Wireless local area network (WLAN) is a radical technology, enabling new ways to provide mobile access. A number of established and new companies have entered the mobile market with new business models. Yet, it is not clear how these new business models affect the mobile industry and which of them will really succeed. We introduced the IDEA framework to guide the design and evaluation systems of new business models driven by new and radical technologies and applied it to the WLAN technology and business models that it enables (Shubar and Lechner 2003). This article focuses on the empiric validation of our hypotheses regarding the public WLAN (PWLAN) industry. We develop the hypotheses according to the IDEA framework for business model design and evaluation. In the empirical study we analyze business models of 118 PWLAN companies and compare them with the business model types, which we have identified according to the IDEA framework. The second subject of our empirical research are recent alliances and cooperations in the PWLAN industry. We analyse 78 alliances and co-operations. This article targets academics, who are interested in business model innovation, as well business people, who are interested in the recent development of the PWLAN industry. Keywords: Public WLAN, Business Models, Mobile Business, Mobile Internet, Innovation Wireless Fidelity (WiFi) , Industry Analysis, Hot Spots.
2004	17th Bled eCommerce Conference	Methodology For Web Presence Strategy Formulation: A Case Study	Isabel de Meiroz Dias, Nicolau Reinhard	The objective of this research was to identify how a specific methodology of strategy formulation for the Internet addresses the Business Model concept. We see the Business Model concept as a basis for understanding and exploiting the value creation potential generated by the Internet technological platform (ITP). The main possibilities that the ITP offers organizations are related to the reduction of transaction and coordination costs, which facilitates the forming of strategic networks. In order to take advantage of the ITP , one should seek complementarity between the traditional activities of the organization and those based on the new platform, together with an in-depth revision of processes, searching for steps that may be optimized through the ITP. To understand and exploit the value creation potential, it is convenient to adopt the Business Model concept, analyzed from the point of view of each of the organization's stakeholders. The Business Model as a unit of analysis integrates the different perspectives on value creation that can be found in the theory. The model suggests that the IPT value creation potential depends on four interdependent dimensions: novelty, lock-in, complementarities and efficiency. The case study of the Web Presence Strategy Formulation methodology, by AgenciaClick, an Internet development company in Brazil, describes how this methodology addresses the strategic concepts and analytical methods identified. The business model approach could cover some of the methodology's gaps.
2004	17th Bled eCommerce Conference	It.s All About My Phone! Use Of Mobile Services In Two Finnish Consumer Samples	Christer Carlsson, Kaarina Hyvönen, Petteri Repo, Pirkko Walden	The technology platform for the supply of mobile services has diversified in recent years. Technologies such as WAP, GPRS, MMS and smart phones offer new possibilities to build and distribute mobile services. The platforms also offer services which potentially are both more advanced and easier to use. There are two problems with this perspective: consumers apparently are not willing to part with their old phones (and thus will not get access to the service potential) and value-added in terms of technology is not necessarily value-added in terms of services. Thus we will look at the relationship between mobile phones and services to examine their adoption and acceptance. Most importantly we focus on the mobile phones users have and how they intend to upgrade them, and then on what mobile services they use and how they intend to upgrade them. Our proposal is that the technology roadmap is not synchronised with the progress in value-added services, which potentially may cause significant disruptions in the markets for mobile applications.

2004	17th Bled eCommerce Conference	Balancing Requirements For Customer Value Of Mobile Services	Edward Faber, Timber Haaker, Harry Bouwman	Designing business models for mobile services is a complex undertaking because it requires multiple actors to balance different design requirements. A business model can be seen as a blueprint of four interrelated components or domains: service, technology, organization and finance domain. Little attention has been paid to how these different domains are related to each other. This knowledge is needed to enhance our understanding of what constitutes a viable business model. In this paper the connections between two of these domains, namely service and technology domain, are explored by analysing critical design issues in business models for mobile services, i.e. targeting, creating value, branding and customer retention in the service domain, and security, quality of service, management of service profiles, system integration and accessibility in the technology domain. A causal framework is developed, which link these critical design issues to expected customer value and business model viability.
2004	17th Bled eCommerce Conference	Distinguishing Different Types Of Initial Trust In Online C2C Auction Markets	Selmar Meents, Yao-Hua Tan, Tibert Verhagen	Many researchers observe that trust is of importance in online transactions. Most of them have focussed on the trust a buyer has in a seller. In an online C2C auction market, such as eBay, trust in the organization that facilitates the auction is an additional trust relationship that is of importance for the outcome of the transactions. Here we investigate which types of trust relationships are present in an online C2C auction market and which differences exist between these relationships. The focus lies on situations of initial trust, in which parties have not gained experience with each other yet. We present a model of antecedents of initial trust that can be used to analyze these different types of trust relationships. These antecedents are: reputation, formal control structures, disposition to trust and communication.
2004	17th Bled eCommerce Conference	Organizational Responses To Globalization In Some Developing Countries: Interviews With CIOs In Hungary, Romania And South Africa	Laszlo A. Pook, Mike Hart, Zsuzsanna Szabo	CIOs in Hungary, Romania, and South Africa (SA) are today overcoming disadvantages that their firms suffered during decades of closed national markets. This paper reports on a series of interviews conducted with CIOs in these developing countries focusing on national and organizational strategies used to prepare for international competition and globalization. They achieved competitiveness by investing in information technologies (IT) that deliver strategic information to their stakeholders. CIOs expressed their views on national economic and market policies as those policies affected their organizations, their markets, and the local economy. Many CIOs remain confident in the general benefits of globalization though some hope for government protection, they nurture local expertise and bestow upon it the best IT they can offer, use IT as a value added component and where their firms use imported technologies they improve on them. Hungarian and Romanian CIOs perceived their organizations were investing more significantly in Internet technologies than South African CIOs, however, that may be a sampling aberration or a cultural bias.
2004	17th Bled eCommerce Conference	Does It Really Matter? First Impressions From A Company.s Web Site	Joze Kuzic, Linda Dawson	As early as 1997 many corporate executives realised that in the network era a web site would influence a company's image immensely. Anecdotal evidence suggests that in the electronic commerce environment nowadays this influence is becoming more visible as the customer quality perceptions of web sites play a vital role in a company's success. Research reported in this paper investigates the influence of visiting and evaluating web sites by the customers on changing their perceptions about a company's image; the most important features regarding first impressions about web sites; as well as possible relationships between each of these features and a company's image.
2004	17th Bled eCommerce Conference	The Transition From E-To M-Business Chances And Challenges For Enterprises	Katarina Stanoevska-Slabeva	Mobile technologies and m-business are considered as the next innovation potential for organizations. They provide an additional communication and transaction channel, that can be applied to enhance existing e-Business applications. However, while during the mobile hype in the years 1999-2000 there were many visions how mobile technologies can provide benefits to companies, the challenges and necessary prerequisites related to the application of mobile technologies have been hardly addressed in literature. This paper tries to contribute to fill the gap and provides, an overview of application areas and challenges of m-business for organizations. The overview is created based on a broad literature review of published essays, cases and experiences.
2004	17th Bled eCommerce Conference	Public eProcurement In Denmark: Measurements Of Suppliers. eMaturity	Helle Zinner Henriksen, Deniz Oskan Kerstens, Kim Viborg Andersen	The paper introduces and evaluates a model for measuring the level of eCommerce maturity for suppliers to the public sector institutions in Denmark. The model comprises four distinct levels and seven parameters. These parameters are related to organizational and technological attributes relevant for eCommerce. Based on an empirical evaluation, it is found that the model is a useful tool for suppliers wanting to evaluate their level of eMaturity. Due to specific requirements from public sector customers it is argued that suppliers to the public sector have to possess a high level of eMaturity.

2004	17th Bled eCommerce Conference	Community Dynamics In An Online Law Journal	Aldo de Moor, Sjeff van Erp	Online communities are continuously evolving socio-technical systems. To provide them with better change management support, a systematic analysis of the norms that govern their evolution is required. In this paper, we present an approach that was used to analyze the community dynamics in an online law journal. Electronic journals in the legal domain are essential instruments in the validation and distribution of new legal knowledge. To ensure the high quality of these e-journals, the dynamics of the online communities in which the various journal stakeholders interact need to be well understood. We outline the evolution of one of the first successful legal e-journals: the Electronic Journal of Comparative Law. We describe the change management lessons learnt in practice and use these to illustrate our diagnostic approach for self-governance analysis in virtual communities.
2004	17th Bled eCommerce Conference	The Importance Of eSecurity In The Overall eStrategy Of An Organisation	Aleksander Sinigoj	Information security strategy is necessary in organizations in order to determine their risks and providing suitable policies and procedures for appropriate controls and countermeasures to manage those risks. Still too often the human factor is underestimated and people do not know how to choose safe passwords, how to react when they find out about a security breach, all that due to the fact that they are not properly trained or educated. Information security is not just a technical issue but also a policy and human issue that requires the use of technology to protect the business information. Our goal should be to clearly define roles and responsibilities of information security officer and all employees in an organization to improve overall security and the protection of that information.
2004	17th Bled eCommerce Conference	Innovation-Expansion In The ICT-Industries: R&D Acquisition And Integration Success From A Knowledge Perspective	Torsten Brodt, Sebastian Knoll	This paper investigates the role of early stage integration mechanisms in acquisitions where the prime goal is to acquire the research and development capabilities of the target firm, i.e. the knowledge of the target firm. We term this transaction 'R&D acquisition'. This is most relevant for industries with extreme hunger for external knowledge like the IT-, telecommunication- and media- (ICT) industries. Based on a review of the related knowledge transfer and post merger integration literature and based on an existing model for clustering R&D units by Birkinshaw (2002), we develop a testable model for the relationship between the choice of early stage integration mechanisms and R&D acquisition success. We argue that this relationship is moderated by the knowledge characteristics of the target firm. We suggest specific early acquisition integration mechanisms for the successful integration of three distinct and practically observable target firm R&D constellations. We illustrate our model with a telecommunication case example.
2004	17th Bled eCommerce Conference	Internet Privacy, Social Awareness, And Internet Technical Literacy . An Exploratory Investigation	Tamara Dinev, Paul Hart	This study focuses on exploring Internet technical literacy and social awareness as antecedents to Internet privacy concerns. We report on the development and validation of instruments for Internet technical literacy and social awareness. Individual's privacy concerns are then considered with respect to these two constructs. The relationships are measured and explored through Exploratory Factor Analysis (EFA) followed by linear regression models. We found that all the hypothesized relationships are statistically significant - social awareness positively and Internet technical literacy negatively related to the Internet privacy concerns. The contribution of this research is in the attempt to explore psychological antecedents to privacy concerns that could direct IS managers and e-commerce marketers towards strategies of broadening Internet user base and facilitating the interaction and usage of Internet web sites and applications, thus opening more opportunities for growth and competitive advantage.
2004	17th Bled eCommerce Conference	Mobile Community Support: A Mobile Reservation System For The Leisure Industry	J. Felix Hampe, Petra Schubert, Frank Schneider	Communities (especially virtual communities) of Interest have recently been the focus of substantial consideration within academic literature. This paper addresses Communities of Interest within the Leisure Industry and provides an innovative value added service concept for mobile coordination support for individuals. Thus it extends the discussion to mobile communities, which in fact leads to a hybrid-solution. After briefly presenting the state of the art of IT in the leisure industry and describing the empirical aspect of the project objectives we introduce the MCOR (Mobile Community Online Reservation) system. Finally we discuss design considerations and the blueprint of our future research.
2004	17th Bled eCommerce Conference	Digital Wheel Barrows In Local Government	Kim Viborg Andersen, Niels Christian Juul	This paper finds through a vertical and horizontal study of local municipalities and health data network, that government has excelled in acquiring and re-using data in a digital format. The continuously and successful reliance on transaction and process improvements is contrasted by no or only marginal use of data to improve the core of services. The study suggests that most data are available in the least end-user oriented processes and that government appears to be reinforcing, rather than leveling, this imbalance.



2004	17th Bled eCommerce Conference	Understanding Disputes In Online Auctions	Ian MacInnes	While much attention has been given to reputation mechanisms to deter fraudulent behavior in online auctions, we know little about the nature of disputes or the types of problems that users face. This is an exploratory analysis of 129 disputes for six different types of products that were sold on eBay. In the descriptive and multinomial analysis, we find eight different types of disputes including poor quality, slow shipping, seller withdrawal, failure to ship the product, fraud, poor communications, misunderstanding, and non-paying bidders. Of these the most common types of disputes were poor communications, non-paying bidders and item quality. In the most serious disputes of fraud and no shipment where the seller is at fault the reputation ratings are much lower than the ratings for other disputes related to sellers. Similarly for buyers, the reputation ratings for the most serious disputes of non-paying bidders are considerably lower than those of other types of disputes related to buyers. This implies that analysis of reputation ratings is of some value in reducing the probability of dispute. Of the types of payments methods in eBay auctions personal checks show the greatest number of disputes. Auction sites may wish to discourage sellers from accepting this type of payment.
2004	17th Bled eCommerce Conference	Government-To-Government Enterprises In Brazil: Key Success Factors Drawn From Two Case Studies	Luiz Antonio Joia, Aristides Andrade Cavalcante Neto	Recently, various governments have seized the moment provided by Information and Communication Technology as the ideal opportunity to rethink and reformulate their administrative praxis. The digitally-enabled collaboration and cooperation perspective among different government agencies – commonly referred to by the acronym G2G (Government to Government) – is the main focus of this study. Consequently, this work seeks to analyze the key factors for successful implementation of G2G projects. In order to achieve this, multiple case study explanatory methodology based on two recent real-life cases was adopted. From these case studies, the critical success factors in the implementation of Government-to-Government processes between public agencies in Brazil are studied. Finally, some conclusions are drawn and further research is presented in order to assist policy makers and public administrators in dealing with this new field of knowledge adequately.
2004	17th Bled eCommerce Conference	The Influence of Product Type on Online Trust	Khaled Hassanein, Milena Head	Trust is a critical factor in establishing a successful relationship between consumers and vendors. This paper investigates the impact of the product type being sought on consumers' trust within an online environment. An empirical study involving 227 online shoppers was conducted to develop and validate a structural equation model for online trust incorporating the factors of perceived usefulness, perceived ease of use and enjoyment as representative variables of a consumer's experience within a company's Website. Results from this study indicate significant variations in the experience and trust levels of tangible versus intangible product shoppers.
2004	17th Bled eCommerce Conference	TiBiD - Trust Building And Matchmaking Support For Virtual Enterprises	Michael Koch, Kathrin Möselein, Ralf Reichwald, Johann Schlichter	Virtual enterprises mostly renounce formal contractual guarantees as a coordination mechanism in order to ensure overall flexibility. However, when formal coordination mechanisms vanish, informal coordination immediately gains increasing importance. As a consequence, trust becomes a decisive issue for all kinds of loosely coupled organizations and especially virtual enterprises. This paper presents some of the results of the three year interdisciplinary research project TiBiD that explored the issues of trust and reputation in the initiation phase of virtual enterprises. The project brought together researchers from three different disciplines - psychology, management research and informatics – to design, explore and evaluate a field experiment on the key question of how trust is built and how trustbuilding can be supported in the early phase of cooperation processes between distributed and loosely coupled organizational units.
2004	17th Bled eCommerce Conference	Performance Measurement Of eProcurement Solution With Dynamic Pricing Aspect	Radoslav Delina, Anton Lavrin	One of the biggest problems by decisions in the e-business investments is unclear ROI and uncertainty about how to measure results. In this paper we present some aspects of research in measuring the impact of web based B2B procurement. Presented approach is focused on ROI indicator, which we have adjusted to e-commerce specifics, especially to procurement with dynamic pricing transactions. This measuring is performed by accepting structural ROI decomposition by the level of quantification of complexity of attributes used in this indicator. It is expressed by ROI added, i.e. value added for enterprise due to implementation of e-procurement / commerce solution. Finally, we present a conclusion of our research performed on Slovak mining enterprise.

2004	17th Bled eCommerce Conference	Ontology-Based Analysis Of eService Bundles For Networked Enterprises	Ziv Baida, Jaap Gordijn, Hans Akkermans, Andrei Z. Morch, Hanne Saele	Model-based approaches to developing multi-enterprise e-Business initiatives help involved enterprises understand the initiatives by creating a shared understanding as a basis for profitability assessment. Still, when developing a business model where multiple potential enterprises may participate in offering a service bundle, complexity increases, and the need arises for automated support for the selection of services to include in the service bundle, implying also a selection of partners to work with. To put it differently, given a set of potential services to include in a business model, we need tools to configure one or more feasible service bundles, and to reason about the pros and cons of service bundles. Then the business analysis can be completed by calculating profitability of these service bundles. The configuration process takes into consideration inherent dependencies between available services. Its output is a set of suggested service bundles, based on these dependencies as well as possibly other given requirements related to service properties as price, quality and more. In this paper we present a methodology for doing all the above. We discuss and exemplify theoretical fundaments for such a methodology, in the framework of an e-Business analysis.
2004	17th Bled eCommerce Conference	One Size Fits All? The Dialectics Of Convergence And Divergence In Electronic Commerce	Andreas Voss, Stefan Klein	The wild days of Electronic Commerce appear to be over. The Web has matured to an established, widely accepted medium for business. Literature on Web development and design suggests that best practices have been identified. Large, highly visible companies like Amazon, eBay or Expedia appear to be setting standards in their respective business segments. However, anecdotal evidence suggests that there is a still a high level of divergence on the consumer front end: socially accepted and acknowledged routines have not yet emerged and companies are changing their Web presence regularly. This raises the question, whether online customer front ends will become more similar or more different, whether convergence or divergence will be symptomatic for the further development of the domain. In order to understand the ambiguous situation, we are discussing drivers for either divergence or convergence on different conceptual levels of a commercial Web site. For purpose of illustration we will use examples from a range of industries.
2004	17th Bled eCommerce Conference	The eBusiness Navigator: Implementing A Classification Scheme For The eDomain	Barbara Sigrist, Petra Schubert	The paper describes research activity for the development of the "e-business navigator" – a graphical representation of a classification scheme for the e-business domain. The need for a common understanding of e-business terms evolved in the publicly funded project "eXperience" where case studies were to be classified according to a common standard. The authors of this paper developed a common classification scheme in order to structure relevant knowledge and make it publicly available for all interested researchers and practitioners. One of the objectives was the creation of a common language among all parties involved. A network project of European perspective is in the making and will advance the discussion about the common e-language and e-understanding. Above all, this network will work with the classification scheme and validate its use and implementation in the time to come.
2004	17th Bled eCommerce Conference	The Shaping Of Inter-Organisational Information Systems: Main Design Considerations Of An International Comparative Research Project	Kai Reimers, Robert B. Johnston, Stefan Klein	Based on a critical analysis of the literature on the development and adoption of interorganisational information systems (IOIS) we propose a new unit of analysis for IOIS studies, define levels of analysis based on this unit in order to organize a large set of variables pertinent to the study of IOIS, and show how this design will be implemented within an international collaborative research project. The main goal of our research is to shed light on the interaction between characteristics of IOIS and their development trajectories on the one hand and characteristics of industries and countries on the other hand. We expect that both, industry characteristics and characteristics of national environments have a significant influence on the type and development of IOIS but submit that understanding of these relationships is in its infancy and that significant new insights can be gained by carefully specifying the network level of analysis. Better understanding of the way IOIS are shaped can greatly assist in evaluating the extent to which adoption experiences in one industry or country can be validly used to inform policy choices in another industry or country. Keywords: inter-organisational information systems, electronic data interchange, unit of analysis, research design, international comparative research

2004	17th Bled eCommerce Conference	Operationalizing Critical Mass As The Dependent Variable For Researching The Diffusion Of eMarketplaces . Its Implications	Ramanathan Somasundaram	E-market in this paper is regarded an innovation. Traditionally, researchers studying the diffusion of information technology innovations regard “adoption” of technologies by individual and organizations the dependent variable. This paper breaking away from tradition quips what if we regard critical mass the dependent variable? Critical mass seems an appealing dependent variable for an e-market can attain critical mass only when adequate number of end users adopt and participate. However, critical mass can be regarded the dependent variable only when we are able to predictively measure critical mass. Potential adopters' expectation regarding an e-market's profitability is proposed a measure for critical mass. Critical mass is explained here a moving target. The exact point in time at which an e-market would attain critical mass cannot be specified just as the market equilibrium in reality cannot be specified. The dynamics of attaining critical mass and not critical mass per se should be of interest just as it is about market equilibrium. Can critical mass theory as applied in this paper be used for researching the emergence of open source communities? When then does an open source community attain critical mass?
2004	17th Bled eCommerce Conference	Factors Facilitating Successful Adoption Of eMarketplace By SMEs: The Case In Slovenia	Brigita Gajsek, Andreja Pucihar	Traditional selling channels are supplemented by new ways of doing business via Internet. One of this new ways is also electronic markets. Doing business on electronic market is not wide spread yet in Slovenia. But on the other hand some companies in Slovenia already have some experiences with eMarketplaces. Sharing of information will help other companies to adopt new selling channels faster. In the paper we present the most important factors for efficient entering eMarketplaces estimated by representatives of 3 big and 15 small and medium sized enterprises. From the seller perspective, company is efficient when it wins and runs business on electronic market with support of Internet intermediary. Searching for new business partners in longer period of time will bring good results only, if it will be support by top management. For successful selling on electronic market its own trade mark and size of the company are not crucial factors. To get the best results it is needed to educate employees, to daily plan activities on electronic market and to acquire quality and safety certificates for products and processes. Key words: eMarketplace, eCommerce, supplier, Internet intermediaries, factors, entering
2004	17th Bled eCommerce Conference	eCommerce Strategy In A Multi-Sector Trading Environment . Quandaries For SMEs	Darryl Coulthard, Tanya Castleman, Lynn Batten	For nearly a decade the potential benefits of Business-to-Business electronic commerce for business efficiency and competitiveness have been vigorously promoted by business, industry groups and governments. The belief underpinning policy is that from a small initial step, eCommerce will become a central part of their business strategies. This paper considers the use of B-2-B electronic transactions by SME suppliers who trade with buyer companies across diverse industry sectors in Australia. We investigate the links between their business strategies and their views of electronic trading. A survey of 240 crosssector suppliers nationwide found little evidence that electronic trading was integrated with their overall business strategy. We suggest an approach to the understanding of cross-sector electronic trading strategies that emphasises the complex, inter-connected but fragmented trading milieu rather than describing the balance between drivers and barriers that operate for the individual firm.
2004	17th Bled eCommerce Conference	Developing A Framework For Multi Channel Strategies . An Analysis Of Cases From The Grocery Retail Industry	Claas Müller-Lankenau, Stefan Klein, Kai Wehmeyer	Based on ongoing research in multi channel management, we are proposing a simple taxonomy of multi channel strategies. Cases from the grocery retail industry are not only used to illustrate four core strategies but also to study contingencies for the choice of the respective strategies. Furthermore, the cases are used to analyze the alignment of corporate marketing and online channel strategies.
2004	17th Bled eCommerce Conference	Exploring Destination Brand Communities: A Business Model For Collaboration In The Extremely Fragmented Tourism Industry	Erik van 't Klooster, Frank Go, Peter van Baalen	Intense global competition in the tourism industry forces destinations to develop strong, unique and competitive destination brands. This is not an easy task since the sector is extremely fragmented and many images are beyond their control. This working paper explores the concept of destination brand communities which provides a platform for facilitating connectivity, trust building and decision making amongst a wide range of tourism stakeholders and other related destination image producing industries, in order to develop and maintain a sustainable destination brand strategy. Furthermore, the destination brand community should try to emotionally connect with consumer communities in order to match its narratives with the hot buttons of the tourists, thereby creating significant pull effects. The final part of the paper addresses the design of the destination brand community in a polycontextual environment as it has to connect dispersed stakeholders with different backgrounds, cultures and interests. It is argued that destination brand communities should focus on making sense of mind space, social space, information space and material space in order to facilitate effective and efficient decision making.

2005	18th Bled eConference	Environmental Factors Defining eMarketplace Adoption: Case of Large Organizations in Slovenia	Andreja Pucihar, Jože Gričar	By bringing together large numbers of buyers and sellers and automating transactions, eMarketplaces expand the choices available to buyers, give sellers access to new customers (buyers), and reduce transaction costs for all participants. Business environment factors, how an organization does business, have an influence on the organization's decision about adopting eMarketplace activities. In some cases, the business environment encourages adoption of eMarketplace activities, while in others it is discouraged. This paper presents the importance of the following business environmental factors: trust between business partners, encouragement from the business environment, use of e-commerce between business partners and an organization's relationship to the business environment. Factors were derived from research in 119 large organizations in Slovenia.
2005	18th Bled eConference	Drivers of University Students' Continued Use of Advanced Internet-Based Learning Technologies	Christy M.K. Cheung, Moez Limayem	Despite the growing interest in Internet-based learning technologies and the application of advanced Internet technologies in education, research investigating the use of advanced Internet-based technologies has been very scarce. The objective of this study is to gain a better understanding of factors influencing student continued usage of this learning technology. Since frequently performed behaviors tend to become habitual and thus automatic over time. If individuals are in the habit of using a particular system, the predictive power of intentions is attenuated. Thus, we extend Bhattacharjee's IS continuance model (2001) by postulating habit as a moderator of the relationship between intentions and continued behavior. Results present strong support for the existing links of IS continuance model, as well as the moderating effect of habit. The implications are noteworthy for both researchers and practitioners.
2005	18th Bled eConference	Exploring the Role of Inter-Organizational Information Systems within SMEs Aggregations	Aurelio Ravarini, Federico Pigni, Giacomo Buonanno, Donatella Sciuto	Interorganizational Information Systems (IOIS) will play a relevant role in shaping competition in the next years. Even though companies have become extremely efficient in managing information and logistics inside their boundaries, communication and coordination among partners is still far from effective. Both obsolete technologies and very scarce ICT supported interorganizational process are found in practice. In a global market where the entire supply chain is involved in company success, the proper design and implementation of an IOS is becoming mandatory. SMEs, and in particular those inside industrial aggregations, could greatly benefit from IOIS implementation, however a widely accepted IOS adoption theory is still lacking. Focusing on the description of an industrial aggregation this paper proposes a framework, its implementation and a field test on 70 companies belonging to an industrial district, to understand the relationships among aggregation's main players. The analysis of the results proved that this approach offers useful insight for the comprehension of the aggregation and suggest its use as a pre-design IOIS tool.
2005	18th Bled eConference	A Multi-Perspective Framework for System Design: Measuring Price of Convenience Dynamism in End-User Encounters with Innovation	Grace Ng-Kruelle, Paul A. Swatman, J. Felix Hampe, Douglas S. Rebne	The paper describes a multi-perspective approach to measuring dynamics of end-user encounters with innovative artefacts and services which fall into the class broadly described as pervasive Information Systems and which includes m-commerce systems and devices. This working framework is based on the "Model of User Acceptability and Product Uptake" which, in turn, is drawn from the "Price of Convenience (PoC)" model (Ng-Kruelle, Swatman, Rebne and Hampe, 2002c). We model the framework as consisting of multiple system actors with a variety of influence, interests and functionalities.
2005	18th Bled eConference	Designing Control Mechanisms for Networked Enterprises: The Internet Radio Case Study	Vera Kartseva, Jaap Gordijn, Yao-Hua Tan	In a network of organisations the design of appropriate control mechanisms is important to prevent and detect opportunistic behaviour of the members of the network. In most cases, control mechanisms can already be seen in the business value model, because most controls add new exchanges of economic value between enterprises. However, controls encompass also operational aspects, not covered by business value models, but which are important for the understanding and operation of controls. We developed the e3-value+ methodology for designing inter-organisational control mechanisms, based on analysing value aspects of network organisations. We illustrate it with the case for the distribution of music tracks via Internet radio, where we apply the methodology to design a control to monitor whether Internet radio stations and Right Societies cleared the right amount of tracks. We present the control mechanism not only from a business value model perspective, but also from an operational perspective, thus showing that the control can indeed be implemented.

2005	18th Bled eConference	Internet Users' Privacy Concerns and Attitudes towards Government Surveillance - An Exploratory Study of Cross-Cultural Differences between Italy and the United States	Tamara Dinev, Bellotto Massimo, Hart Paul, Colautti Christian, Russo Vincenzo, Serrallaria	This study examines cross-cultural differences in individual's privacy concerns and attitudes towards government surveillance as related to e-commerce use for Italy and the United States. We argue that for both cultures the user's decision to make a purchase is influenced by privacy concerns, perceived need for security provided by the government and the balancing concerns for government intrusion. The empirical model was tested using LISREL structural equation modeling. To better understand the differences across the two cultures for privacy perceptions and attitudes toward government, we incorporate dimensions from two of the most influential cultural theories – Hofstede's (2003) individualism/collectivism, and Fukuyama's (1995) theory of trust and social capital. The results support the hypotheses of the study in terms of direction and relative magnitude.
2005	18th Bled eConference	Evolution of the European Online News and Music Sectors: A Comparative Descriptive Study 2002 - 2004	Comelia C. Krueger, Paula M.C. Swatman	The digital content market-space and, in particular, the varied and rapidly evolving business models which are emerging within it, has continued its rapid growth despite the dot.com crash and has generated a significant body of theoretic literature – although there is not, as yet, an equivalent body of empirical studies in this area. In this paper we report on the final phase of a three-year, EC-funded project which investigated the European online news and online music market sectors, summarising the findings of our face-to-face interviews and contrasting them with our (published) findings from the earlier surveys we undertook of this same area. While there are some notable differences between these two market sectors (primarily the proactive approach taken by the online news sector, compared with the reluctance demonstrated by the major players in the online music sector) we find that, overall, companies in both these sectors have changed their views of the online market-space over the three years of our study from an initially pessimistic stance to a more positive and optimistic position. This is due, to a large extent, to external factors including the development and acceptance of technology, new end devices and the increasing maturity of the competitive environment.
2005	18th Bled eConference	Measuring E-Transformation in the Logistics Industry: A Knowledge Capability Index	Janice Burn, Paul Alexander	The Logistics industry is undergoing radical transformation as retail organisations focus on core competencies, outsource many of their logistics operations and explore online channels. Ongoing research into this transformation process has identified a new breed of "e-fulfilment" providers with a specific set of capabilities. These capabilities can be described using a staged e-business transformation model. Discernible movement towards increased knowledge-based capabilities is evident. This paper reports on quantitative changes in an index of transformation previously developed by the authors, suggesting significant transformation from physical to knowledge based activities. These changes will have long-term impacts not only on the Logistics industry but also on all online retail operations.
2005	18th Bled eConference	Balancing Standardization with Organizational Indeterminacy: The Use of IT in Universities	Elpida Prasopoulou, Nancy Pouloudi	Universities are highly computerized places with a strong technological infrastructure ranging from ERP implementations used for the re-organization of administrative processes to web-based learning applications and development tools deployed to restructure existing learning models. However, the outcome of these technological interventions is not quite clear mainly because the interaction between information technology and the fluid organizational structure of universities is only narrowly considered in the IS literature. In this paper we examine whether current technological solutions designed to support primarily well structured organizational operations can enable coordination among loosely coupled elements. To this end, we present the case of an inter-university collaboration which deployed advanced information technologies as the backbone for collaboration among its members. We posit that the introduction of information technology in fluid environments has many implications which lead to the gradual rejection of the technological solutions. We conclude by critically examining the growing pressures for a more flexible university with the extensive use of advanced information technologies.

2005	18th Bled eConference	Web Services System Development: A Grounded Theory Study	Maddalena Sorrentino, Francesco Virili	This study in progress presents a grounded theory analysis of a case study in the banking industry with a view to showing the role of "Web services" technology in information systems development practices. The case study relates to the implementation in the Central Europe Bank (a pseudonym) of a new software application based on Web services technology. In particular, the focus is on the following research question: what are the peculiarities of the Web services software development process? A tentative answer to the question is advanced here in the form of a preliminary formulation of a descriptive theory of the Web services ISD process. In particular, an effort is made to understand whether the Web services ISD process can be considered as a short-cycle development process (Baskerville and Pries-Heje, 2004). The process under observation might be categorised in a preliminary way as a "hybrid" one lying between methodical and amethodical development processes. Indeed, the data collected and analysed so far confirm the complexity and richness of the situation taken into consideration, offering useful insights to complete and further extend both theoretical and empirical analysis.
2005	18th Bled eConference	Orchestration in ICT-enabled Business Networks: A Case in the Repairs Industry	Juan Rodon, Xavier Busquets, Ellen Christiaanse	Although business network orchestration has been widely studied in the literature, this paper calls for more research to understand the management and use of the ICT that supports the relationships of business networks. The aim of the paper is to explore existing and new functions attributed to orchestrators in ICT-enabled business networks, as well as examine the effects of orchestrators' actions and decisions on the network of relationships and the performance. We illustrate these functions with a case study in the repairs and emergency services industry. This paper proposes that business network orchestrators must act as integrators in order to leverage the benefits from using ICT to support the business network relationships and processes.
2005	18th Bled eConference	Business Models: A New Perspective on Knowledge-Intensive Services in the Software Industry	Risto Rajala, Mika Westerlund	Firms' specialization to core competencies as a response to intensive competition in technology and knowledge-intensive industries, such as software industry, emphasize network-intensive business behavior and the importance of utilizing resources beyond company boundaries. In recent years, outsourcing of services, including knowledge-intensive services (KIS), have attracted increasing attention in the research literature. However, KIS have not been sufficiently analyzed in connection with different types of business models. Taking theories of interorganizational exchange, including industrial network approach and the transaction cost theory as our basis, we analyze key knowledge-intensive services in four different types of business models of software companies. In our empirical analysis, we identify that the role and type of KIS vary systematically by business model-types.
2005	18th Bled eConference	Factors Affecting Evaluation of E-Business Projects	Vasja Vehovar, Dušan Lesjak	The 2003 survey among Slovenian companies was studying the factors affecting the formal evaluation of e-business projects. The corresponding causal model revealed that the perceptions and the attitudes towards e-business strongly affect the corresponding evaluation practice. In particular, the recognition of the needs for corresponding evaluation had the strongest effect. On the other hand, the high occurrence of problem related to e-business implementation has a negative impact on the introduction of the evaluation methods.
2005	18th Bled eConference	PDA's as Time Management Tools: Experiences with Mobile Digital Calendars	Anna Sell	This paper reports on a trial where a group of university students were given the opportunity to use high-end PDAs for their time management needs during two months. The purpose of the study was to gain insight through the fresh eyes of mostly novice users of electronic calendars; insight that could be used to propose improvements to current mobile digital calendar standard interface functionality and layout. Even though the students recognised useful and important features of mobile digital calendars, such as reminders, they were critical of the fact that the mobile digital calendars did not offer as much functionality as they had hoped for. The general sentiment was that the calendar experience did not offer enough clear benefits compared to their usual experience of using a paper-based calendar to warrant using them. Also, the participants identified shortcomings of the tool which further lessened their sense of benefit from using the PDA calendar.
2005	18th Bled eConference	Internet Communication in the Development of Business Relationships	Nataša Golik Klanac	Although numerous studies acknowledge the increasing importance of the Internet communication in business-to-business relationships, there is not any wide investigation on its characteristics in different stages of a business relationship development. Hence, this paper explores how Internet communication facets (frequency, direction, mode and content) vary throughout the process of the relationship development, and identifies possible gaps between characteristics of Internet communication and stages of a business relationship. The analysis performed here fortifies the opinion that different stages of the relationship call for such Internet communication which is guided by the characteristics of the specific stage. Hence, for the purpose of gathering generic information about products and a company, ornamental websites may be apt. However, in order to foster relationship evolution, more personal, individualized and interactive modes of the Internet communication should be employed.

2005	18th Bled eConference	Case Study: Hostelworld.com	William Golden, James Cunningham	The case describes the market growth of Web Reservation International an Irish SME company, which is a market leader in the Budget, Independent and Youth Travel (BIYT) market through its online reservation system. The case describes the development of the company through organic growth and acquisitions. The case raises four main questions. Is the WRI domination position sustainable in the long term? Is WRI business and revenue model transferable into other sectors of the travel industry? Does WRI have the management capability to transition to a post-entrepreneurial phase? What is the most appropriate option to develop the business?
2005	18th Bled eConference	Business Case Modelling for E-Services	Wil Janssen, René van Buuren, Jaap Gordijn	In this paper we show how business value modelling and enterprise architecture can blend into an integral approach for modelling e-services business cases. The approach, building upon e3value and ArchiMate, allows to link revenues and cost in a single model. The approach is illustrated on by the business case model of a virtual laboratory in the process industry. First experiences have shown significant value in the approach for different stakeholders (managers and engineers).
2005	18th Bled eConference	New Context and Actors in Public E-Services Provision: The Example of Quasi-Markets for Education	Agneta Ranerup	A fundamental assumption in this article is that not only the public administration but also semi-private and private agencies provide electronic intermediaries between public services and citizens in a quasi-market situation. The theoretical framework of this study views markets as constructed in contrast to natural phenomena. In these processes of construction the role of technologies such as the Internet is seen as decisive. This view will be applied to the quasi-market for upper secondary education using empirical experiences from Sweden. Two questions are addressed in the article: (1) How is the choice of education and available alternatives embodied in the electronic intermediaries and what are the accompanying consequences for citizens? (2) In what ways do public, semi-private and private actors take part in the design of electronic intermediaries in quasi-markets for education featuring as an element in quasi-market construction?
2005	18th Bled eConference	SME Myths: If We Put Up a Website Customers Will Come to Us - Why Usability Is Important	Julie Fisher, John Bentley, Rodney Turner, Annemeike Craig	Many businesses use their Websites primarily as an alternative marketing strategy. How a business's image, via a Website, is presented to potential customers is therefore important. There are many factors that will influence the effectiveness of a Website, two critical factors are how easily users are able to navigate and how easy the site is to use. The research reported here examined these two factors on users' responses to small and medium-sized business Websites. The research found that the quality of navigation and how easy a site is to use does have an impact, how much information is read, the importance of the graphical components, a user's emotional response to a Website, users' frustration and the user's intention to return to that Website. The research established the statistically significant elements that contribute to navigation and ease-of-use, and describes the design and successful application of a usability evaluation instrument.
2005	18th Bled eConference	Mobile Commerce: Insights from Expert Surveys in Austria and Finland	Christer Carlsson, Joanna Carlsson, Michaela Denk, Pirkko Walden	Mobile commerce is a unique distribution channel based on the changing role of mobile devices from purely communicational to transactional. For some years there have been high expectations on mobile commerce and several forecasts predict significant revenue growth in the next few years as mobile devices and services will more efficiently support personalized and time-critical activities for consumers and companies alike. So far the adoption of new mobile services has been much slower than predicted. The technology innovations, the functionality of new mobile services and the end user needs of new ser-vices appear to be out of phase, as the network operators decided to use a supply (or "push") approach instead of using a slower (but probably better) demand-driven (or "pull") approach. Based on our empirical evidence from surveys carried out in 2002 and 2003, we can em-phasize that the lack of real-value added mobile applications is one of the most critical barriers to the adoption of mobile commerce in Austria and Finland. We found that the experts from the two countries - markets being quite similar - had noticeably different views of the key issues of mobile commerce.
2005	18th Bled eConference	Intranet Redesign: Management and Employee Perspectives on Usability	Seamus Hill, Thomas Acton, Murray Scott	As intranet implementations of enabling structures for internal electronic business communication increases, research is needed to provide an insight into the factors affecting a successful intranet design (Tang 2000). Using a case study involving a large multinational IT organisation, this paper studies categorical changes made to the user interface design of a large multinational organisation's intranet and examine how that intranet's usability has been affected by these changes from both the managerial and employee 'end-user' perspectives. The paper presents both a background on intranet design, its links to the design of web-based systems, and intranet-focussed usability issues.

2005	18th Bled eConference	Cross-Boundary Leadership: A New Challenge for eGovernment	Elizabeth A. McDaniel, Judith A. Carr	To achieve the vision of eGovernment, organizations across the U.S. federal, state, and local government are challenged to improve efficiency and effectiveness, and to afford citizens the same access to information and services they have come to expect from eCommerce. eGovernment also has the potential to foster participation in governance. To achieve eGovernment objectives, leaders must collaborate across boundaries with their counterparts in other departments, organizations, and levels of government. In 2002, the Information Resources Management College (IRMC), National Defense University (NDU) began focusing on the development of cross-boundary leadership as the foundation of its new eGovernment Leadership Certificate.
2005	18th Bled eConference	Non-linear Pricing of Paid Content Products	Florian Stahl, Fabian Siegel	Bundling and non-linear pricing are popular price-discrimination techniques for offering paid content products. In this paper we analyze the different kinds of non-linear pricing strategies that are observable in the paid content market and the relationship between non-linear pricing and bundling. Another goal of our empirical analysis is to show which design of non-linear pricing leads to a high demand for large bundles, thus maximising revenues and profits. Our results show that companies maximize their profits with non-linear priced paid content products only if the bundles or pricing schemes are designed correctly in order to induce consumers to increase purchasing activity. This should be done by concentrating on the quantity provided to the consumers, as consumers seem to respond more to a change in quantity than to a reduction in the price. As the marginal cost of digital content or services is generally small or even zero, increasing quantity at a lower price per unit is a feasible strategy.
2005	18th Bled eConference	Guidelines for Designing Mobile Information Service Systems in a Value Network	Elisabeth A. M. van de Kar	The domain of mobile information services highlights the blurring of organisational boundaries in the telecommunications, IT and media industries. Various actors performing various roles have to collaborate in value networks to deliver those services. We formulated ten guidelines to support organisations creating these value networks. The backgrounds for these design guidelines are case study observations and literature studies from the fields of system engineering, process management and product design. The guidelines have been applied in an action research project in which a mobile information service was developed on a UMTS testbed and used by university campus visitors. The result of this test is that two guidelines were accepted without change and the others are adapted.
2005	18th Bled eConference	Closing the Loop: Providing Web Service Solutions Enabling E-Logistics Integration	Martin Fenton, Ciara Heavin	In the context of today's business world, collaboration is becoming increasingly important to companies in their attempt to achieve competitive advantage, not least in becoming flexible to meet the constantly changing demands placed on organisations to excel in their sector and achieve growth in the most cost effective manner. The implementation of distributed computing technology is thus an essential element of business strategy. Web services enable the development of remote, distributed enterprise applications. Lower costs of integration may also allow businesses to create new business value by improving data exchange in corporations, with business partners and even competitors. This research focuses on investigating Web services as an integration technology in the context of service logistics and in particular on-line service logistics software delivery through an Application Service Provider (ASP) model. The research serves to outline some of the key considerations necessary for Web services technology to be utilised in the development of robust, useful and cost effective solutions for service organisations. The research considers the case of a service logistics software development organisation that has implemented Web service-based e-integration projects for customers. Key employees in customer organisations provide input to the research findings. A primary objective is to develop insights into the areas where Web service technology can be applied to improve the software solutions provided to these customers.
2005	18th Bled eConference	Electronic Service Quality Gaps in the Australian Wine Industry	Robyn Davidson, Joan Cooper	The wine industry is very important in Australia and the advent of e-commerce has presented the industry with new challenges. This is especially so for smaller wineries in order to reach a wider audience and secure a competitive advantage. The old adage 'the customer is always right' has never been more important, as the foundation stone upon which electronic service quality (e-SQ) lies is customer requirements. Zeithaml, Parasuraman, and Malhotra, (2002) claim that the elimination of e-SQ gaps will lead to customer satisfaction which results in increased perceived e-SQ, value, purchases and repurchases. This paper proposes a formal mathematical definition for e-SQ gaps and a statistical method of testing for the existence of such gaps. This method was applied to a study of Australian winery customers, managers, and websites and it was found that e-SQ gaps did exist. Hence, Australian wineries are not meeting customer website requirements. Further research is being conducted to determine the extent of, and contributing factors to, these e-SQ gaps.



2005	18th Bled eConference	Adoption of Mobile Services across Different Technologies	Christer Carlsson, Kaarina Hyvönen, Petteri Repo, Pirkko Walden	The future of mobile telephony is expected to rely on mobile services and the use of mobile services will be an integral part of the revenues to be generated by third generation mobile telephony. The adoption of new mobile services contradicts this proposition as it has been much slower than expected. Basic services such as search for information, ring tones, and icons and logos are still the most popular services. Based on our empirical evidence from a survey conducted in Finland, we can state that ownership of technologically advanced mobile phones encourages users to try out new services, but the adoption rate of them is nowhere close to SMS, which still reaches a much wider audience.
2005	18th Bled eConference	Supporting Community Awareness with Public Shared Displays	Michael Koch	Community support is currently gaining more and more importance in different areas where communication is important, e.g. in knowledge management. One important issue in community support is making the community and the activity of its members visible to the members – the provision of community awareness. This paper addresses the usage of non-desktop user interfaces, namely public shared displays, as an additional interface for community support applications to provide community awareness. By displaying information from within the community such “Community Mirrors” can help insiders and outsiders getting an understanding of the community, and thereby make more efficient communication possible. We present an overview of how such devices can be used for community support, and briefly describe three applications we have designed and implemented.
2005	18th Bled eConference	Process-Oriented CRM Enabled by Component-Based Workflow Technology	Olivera Marjanovic	To remain competitive, companies are starting to organise their work around customer-centered business processes that cross functional and organisational boundaries. Customer-relationship management is becoming more important than ever before. This paper proposes a new type of process-oriented CRM system suitable for Small-to-Medium Enterprises (SMEs) seeking to integrate a large number of service providers and services and create an added value for their customers. Process-support is enabled by component-based workflow technology. Design of this system is based on a flexible model of declarative business processes that is also briefly described in the paper. To illustrate the importance of the proposed type of CRM support, the paper uses an example of an Australian service-oriented SME .
2005	18th Bled eConference	Business Model: A Perquisite for Success in the Network Economy	Elena Tavlaki, Euripides Loukis	The contemporary network economy is built on powerful fixed and mobile network infrastructures. These infrastructures provide the solid ground for the continuous and rapid introduction of innovative both telecommunication services and business application services. One of the most critical preconditions for the success of these services is to be based on sound business models. Especially today, in the dawn of the networked economy, the concept of business model is not a theoretical tool but a prerequisite for success. Business model is one of the most common factors encountered for, when Internet firms succeed in business. Furthermore, the rapid introduction of innovative applications necessitates the rational design of their business model. However, despite the extensive use, and sometimes misuse, of the business model concept, there is not extensive the scientific research that has been conducted in this area. Moreover, there is still some ambiguity concerning the exact meaning of this concept, which results in a diversity of definitions and a confusion in terminology. In the present paper, initially we present a literature review on the theoretical foundations of business model presenting its definitions- and its components. . Then we focus on the research that has been conducted so far concerning methodologies for designing new business models, we identify its shortcomings and we propose a new framework for 'digital' business model design, by implementing it in a real - life business case.
2005	18th Bled eConference	A Framework for Delivering M-health Excellence	Nilmini Wickramasinghe, Steve Goldberg	Medical science has made revolutionary changes in the past decades. Contemporaneously however, healthcare has made incremental changes at best. The growing discrepancy between the revolutionary changes in medicine and the minimal changes in healthcare processes is leading to inefficient and ineffective healthcare deliver and one if not the significant contributor to the exponentially increasing costs plaguing healthcare globally. Healthcare organizations can respond to these challenges by focusing on three key solution strategies; namely, 1. access - caring for anyone, anytime, anywhere; 2. quality – offering world class care and establishing integrated information repositories; and 3. value – providing effective and efficient healthcare delivery. These three components are interconnected such that they continually impact on the other and all are necessary to meet the key challenges facing healthcare organizations today. The application of mobile commerce to healthcare; namely, m-health appears to offer a way for healthcare delivery to revolutionize itself. However, little if anything has been written regarding how to achieve excellence in m-health. This paper serves to address this major void.

2005	18th Bled eConference	A Case Study on Mobilizing Business Process	Vaida Kadyte	The paper focuses of developing the idea that process visibility is a key aspect of effective business processes, specifically cross-boundary processes, and that it is potentially enhanced by the capabilities provided by mobile technology. The concept of process visibility has been obliquely referenced in business process redesign discussions and kept inside the organisational walls until the late 1990's when it was considered in its own right. Designing mobile solutions for business customers is a complex undertaking because it requires at least two organisations, including their multiple actors, to balance different working needs. We introduce process visibility as a core of effective business-customer care, define its underlying requirements and illustrate how this innovation may affect the handling of customer complaints in a fine paper supply chain. Process visibility enables specific actors to track the dynamics of a process, empowers them and provides higher degree of involvement what may result in increased customer satisfaction. We document and explain a new customer care mechanism piloted within fine paper supply chain at XP, one of the leading fine paper producers in Europe. Results demonstrate that both customers can benefit from it and that XP will achieve significant performance improvements.
2005	18th Bled eConference	Ten Concepts for an eBusiness Collaborative Project Management Framework	Julie Cameron	Theory and frameworks that apply to ebusiness projects undertaken within a single authority are inadequate when organizations need to collaborate. Collaboration demands additional management effort. Project management needs to coordinate the three levels of participating organizations, virtual teams and representatives. Three project lifecycle management functions, which relate to collaboration formation, initiative development, and the take-up and implementation of ebusiness, create extra management challenges. Project management needs to focus on four "meta factors" derived from the critical success factors used by practitioners and identified by researchers. These "meta factors" are motivation, capability, communication and coordination. This summary paper proposes that these ten concepts (three levels, three lifecycle management functions and four "meta" factors) need to be addressed in a theoretical framework capable of supporting effective management of ebusiness collaborative projects, providing an understanding of outcomes and reducing failure.
2005	18th Bled eConference	Supporting Sales Representatives on the Move: A Study of the Information Needs of Pharmaceutical Sales Representatives	Chihab BenMoussa	The purpose of the current study is to understand the nature of the challenges that sales representatives face as a result of operating within a highly mobile and heterogeneous work environment. The paper also focuses on how the sales representatives manage their information needs and discusses the properties of mobile support systems that would enable them to work effectively despite their being extensively mobile. This is achieved through a case study involving the sales representatives of a medium-sized pharmaceutical company
2005	18th Bled eConference	Drivers and Inhibitors Impacting Technology Adoption: A Qualitative Investigation into the Australian Experience with XBRL	Indrit Troshani, Bill Doolin	eXtensible Business Reporting Language (XBRL) is an XML-based innovation which has the potential to play an important role in the production and consumption of financial information. In this paper, in-depth interviews are used to explore a range of issues surrounding the adoption of XBRL in Australia. Drivers that promote successful adoption of XBRL are discussed, together with inhibitors that obstruct it. We find that the current members of the XBRL community are waiting for a critical mass of either users or solutions to appear. Combined with other inhibitors and unfulfilled drivers, this has adversely affected XBRL adoption in Australia. While government agencies may play a significant role in breaking this deadlock through making XBRL use mandatory, we identify some important implications associated with this strategy.
2005	18th Bled eConference	RFID Technology and Applications in the Retail Supply Chain: The Early Metro Group Pilot	Claudia Loebbecke	RFID (Radio Frequency Identification) recently has gained enormous attention in various industry sectors, the media, and in academic research. This paper focuses in early RFID applications in the retail supply chain. It takes a quick look at the available literature and then explains the technological issues including the need for standardization and the challenges on the data, network, and application layers. The study then outlines RFID based applications along the retail supply chain. It takes the case of Metro Group's Future Store, a brick-and-mortar supermarket belonging to the world-wide fourth largest retailer, to investigate the advantages and challenges experienced with early RFID applications. The paper differentiates between RFID tags on pallets and cases on the one hand and RFID tags on items on the other. Finally, the paper closes with a brief summary and an outlook on RFID in the retail supply chain.

2005	18th Bled eConference	E-education - Keys to Success for Organisations	Thomas Acton, Murray Scott, Seamus Hill	Fundamental to success of organisations in the knowledge economy is how such organisations cultivate learning and retain knowledge. E-learning can aid an organisation in developing its knowledge base (Harun, 2002; Wild et al. 2002). E-learning is instructional content or learning experience delivered or enabled by electronic technologies. For e-learning to become a core part of the training strategy of organisations they need to be clear of the business benefits it delivers (Acton and Golden, 2001; Little, 2001; Mann and Robertson, 1996; Young, 2002). However, research indicates that instructor-led training is still the most popular and most used training method within organisations (Acton and Golden, 2001; O'Donnell and Garavan, 2003). This paper presents a study that identifies key areas where organisational knowledge transfer through electronic modes of education can out-perform and surpass more traditional methods. In particular the study compares e-learning with traditional instructor-led classroom training with respect to learner goals, as well as identifying conditions under which 'e' methods benefit the organisation. Findings indicate that when organisational strategic goals are aligned with a managed approach to knowledge transfer, and when employee requirements are identified and central to training procedures, 'e' delivery of training can increase the knowledge base and improve employee satisfaction and competencies.
2005	18th Bled eConference	Mobile Couponing - Measuring Consumers' Acceptance and Preferences with a Limit Conjoint Approach	Kai Wehmeyer, Claas Müller-Lankenau	Coupons are an established promotional tool in marketing and sales. The increasing adoption of mobile telephony and ongoing diffusion of mobile phones have spurred first attempts in mobile couponing. Since consumer preferences and information on service choice behaviour can be of significant value in development processes of innovative products or services such as mobile couponing, we applied a limit conjoint analysis in order to gather first evidence regarding consumer preferences for mobile couponing service attributes. Of the four service attributes included in the conjoint experiment, the configuration channel was found to have the greatest relative importance, followed by the type of coupons, the possibility to personalize or filter the offered coupons, and the location-awareness of the couponing service. Limit card ranks indicated that more than 80% of the n=125 subjects would accept at least one of the described mobile couponing services.
2005	18th Bled eConference	A Pilot Project on eCollaboration in the Australian Toolmaking Industry	Robyn Lawson, Shiromi Arunatileka, Athula Ginige, Ana Hol	This paper outlines developments in a pilot project established to investigate possible strategies that could be adopted by Australian toolmakers to allow them to be more competitive in the global market. The toolmakers agreed to eTransforming their individual businesses, and to collaborate with each other as a virtual organization. Results to date show progress in eTransforming their organizations and steady movement towards eCollaboration. It is suggested that trust is a crucial underlying aspect of successful collaboration, and as such needed to be addressed earlier in this project. The next step in this research will be to deploy the identified strategies and evaluate the outcomes. Future studies include the expansion of the framework and strategies to other Australian toolmakers.
2005	18th Bled eConference	Connecting Future Scenarios to Business Models of Insurance Intermediaries	Harry Bouwman, Edward Faber, Jaap van der Spek	In this paper we explore how intermediaries can redesign their front and back offices by connecting future scenarios to business models and we provide researchers with an approach to connect scenarios to business models. By outlining various alternatives and calculating the consequences of strategic choices, intermediaries become more aware of their strategic opportunities. The practical purpose of this research project is to stimulate the sector's innovative capability and the translation of that capability into viable and feasible business models. In scientific terms this paper combines futures research using scenarios, strategic thinking and business models. The paper shows that combining both approaches not only makes them more valuable, it also make clear the critical interdependencies between strategy, business models and innovation. Furthermore, we feel the usability of our conceptualisation as presented in the STOF-model and the translation into a method of design are important elements.
2005	18th Bled eConference	Business Software Integration: An Empirical Study in Swiss SMEs	Petra Schubert, Uwe Leimstoll	The integration of information systems is a topic which has long been discussed in the literature. Due to technological development, the possibilities for integration have considerably improved in recent years. The following paper concentrates on the integration of business software in SMEs and presents empirical primary data of the current situation in Switzerland. The study aims to demonstrate what has been experienced in previous integration projects and what the demands upon future business software solutions will be. The findings show that, in some software modules, the intensity of use and the degree of integration is dependent on the size of the company.

2005	18th Bled eConference	Common Practices in the Electronic Commerce and Their Legal Significance	Paul Przemyslaw Polanski	<p>The objective of this paper is to present the examples of common practices developed by Internet companies, which are so widespread in the international electronic commerce that they could serve as the basis for adjudicating disputes in the online world (e-customs). Customary norms played a very important role providing norms for solving commercial disputes in the Medieval times (Law Merchant) and continue to play an important role in modern international trade. Modern judges and arbiters refer to commercial customs to interpret legal acts or to settle disputes. And numerous legally relevant practices emerged in the electronic trade, particularly in the areas of online security, electronic contracting, data protection, handling of emails etc. Governments could utilise the knowledge of Internet practices to supplement national and international regulation of electronic commerce. The knowledge of electronic commerce customs could thus enhance Internet-related legislation and make it better adjusted to the needs of the knowledge-based economy. The article also outlines the concept of Internet Law Merchant as an autonomous from the national legal systems body of Internet commerce customary practices, which could be selected by parties to a transaction as the law governing their contract. The paper draws on the concept of electronic commerce custom (e-custom) as a potential remedy in removing legal uncertainty in the electronic environment.</p>
2005	18th Bled eConference	The Role of Electronic Marketplace Quality in Building Online Trust	Tibert Verhagen, Selmar Meents, Yao-Hua Tan	<p>Despite the relevance of generating trust in electronic marketplace settings, research addressing the impact of electronic marketplace characteristics on trust is still limited. The few works focusing on the relationships between the electronic marketplace and trust only pay attention to a limited subset of institution-based functions and services. In this paper we extend these works by focusing on the relationships between the overall impression of the electronic marketplace and trust in an electronic marketplace setting. We position our paper in the field of electronic marketplace research and introduce the concept of electronic marketplace quality. Building upon e-commerce literature, we elaborate on the relationships between electronic marketplace quality and trust. Next, we discuss a conceptual model relating electronic marketplace quality to trust in the market maker (intermediary trust), trust in the population of sellers (seller trust) and consumer purchase attitudes and intentions. We conclude with forthcoming measurement instrument development and planned data collection.</p>
2005	18th Bled eConference	Using IT To Enable Ambient-to-Be SMEs	Olivera Marjanovic	<p>Supported by technology, organizations are becoming more dynamic, adaptive and networked. A term ambient organizations is used to describe evolving organisational forms, enabled by integrated information systems that are designed to support customer-centered business processes and to enhance flexibility and knowledge sharing across functional and organisational boundaries. In ambient organizations, customers become the central focus and various strategies are implemented to involve them as "business partners" or virtual resources. This paper investigates ambient organizations within the context of SMEs (Small-to-Medium Enterprises) with the special emphasis on enabling IT solutions. It then illustrates the concept by an example of a service-oriented SME.</p>
2005	18th Bled eConference	Comparing Two Business Model Ontologies for Designing e-Business Models and Value Constellations	Jaap Gordijn, Alexander Osterwalder, Yves Pigneur	<p>Business models have been an important topic in various disciplines and particularly e-business. Yet, little research has tempted to compare and integrate the different business model approaches. This paper compares two business model ontologies, the Business Model Ontology BMO and the e3value ontology, for the design of business models and value constellations. For that purpose it introduces a framework that allows the comparison of different conceptual approaches to business models. The two ontologies are illustrated through a case study in the domain of rights music management. The outcome of the analysis is twofold. Firstly, it permits a better understanding of business model research. Secondly, it highlights the possible paths to integrate the two ontologies in order to improve the representation, design, and analysis of business models.</p>
2005	18th Bled eConference	Electronic Commerce Projects Adoption and Evaluation in Australian SMEs: Preliminary Findings	Chad Lin, Helen Cripps, Shirley Bode	<p>IT investments in electronic commerce (e-commerce) are used by organizations, as part of their business strategies, to assist in the inter-organizational acquisition of goods into the value chain and to provide interfaces between customers, vendors, suppliers and sellers. Careful evaluation and adoption of e-commerce projects can assist SMEs in achieving their goals. The results of this research showed that most Australian SMEs interviewed appeared to fail in some ways to conduct a proper assessment of business needs before adopting IT investment in e-commerce. Less than one-third of the Australian SMEs interviewed had carried out some sort of evaluation processes. Most users within these SMEs were not involved in the initial phases of adopting and implementing e-commerce projects and the use of these systems was generally forced upon them by the senior management. Moreover, the e-commerce systems adopted by the Australian SMEs were not integrated well with other systems. Furthermore, there appeared to be a lack of obvious linkage between the expected outcomes of the e-commerce projects adoption and organizational goals.</p>

2005	18th Bled eConference	TradeCard: Expanding into China - A Teaching Case	Ali F. Farhoomand	This case features TradeCard Inc., a New York-based financial supply chain service provider, and its plan to expand into the China market. The case discusses how a structured B2B online payment system such as TradeCard can be marketed in China and how TradeCard Inc. can create a critical mass of users in China.
2005	18th Bled eConference	Analyzing Control Trust in Normative Multiagent Systems	Joris Hulstijn, Leendert van der Torre, Yao-Hua Tan	It has been argued that transaction trust is composed of party trust and control trust. In this paper we study control trust: trust in an institution that has set up a control mechanism. We present an account of control mechanisms using normative multiagent systems. Control mechanisms consist of constitutive norms which define evidential documents, and regulative norms which define violation conditions and sanctions. The account is illustrated by an analysis of the Letter of Credit trade procedure.
2005	18th Bled eConference	Process Modelling Notations for eGovernment: An Assessment of Modelling Notations for Identity Management	David Brain, Philip Seltsikas, Deemle Taylor	This paper assesses the suitability of five of the most commonly used and widely accepted generic process modelling notations for modelling eGovernment identity management processes. The selection of an appropriate process modelling notation is critical to the success of the process analysis to be performed. Unless all of the elements that influence process development are represented by the modelling notation, reengineering efforts that stem from such analyses are at serious risk of failure.
2005	18th Bled eConference	Key Factors in E-Government Information System Security	Stephen Smith, Rodger Jamieson	This paper investigates the key drivers and key inhibitors from an Information System (IS) Security and Business Continuity Management (BCM) perspective. The research was conducted using a forum with personnel from nine government agencies with follow-up interviews with personnel from a further sixteen agencies. The study identifies key issues across a broad cross-section of government organisations. These key issues include awareness and active management support, training and appropriate funding. The issues identified are useful to management when implementing IS Security and undertaking Business Continuity Planning over e-government within agencies.
2005	18th Bled eConference	Selling Books Online: An Evaluation of Australian and Swiss E-Shops	Uwe Leimstoll, Sherah Kurnia, Petra Schubert	The Extended Web Assessment Method (EWAM) is an evaluation tool specifically created for the assessment of electronic commerce applications. One of the oldest evaluation methods of its kind, EWAM has been revised and improved over the years. The method is based on an evaluation grid that includes a set of criteria with which to appraise the quality and success of e-commerce applications. The focus is on consumer perspectives and the specific features of the Internet as a medium. In this paper, we used the EWAM tool for the comparative analysis of Australian and Swiss Web sites in the retail sector, more specifically for the evaluation of e-shops whose main business is selling books. The findings show that most of the Web sites assessed do not fully meet the expectations of consumers.
2006	19th Bled eConference	The Semantic Web-Ready Postal Address Management in Global E-Commerce	Damir Trninic	Postal address management in e-commerce is the process of ensuring that all name and postal address data held by online businesses is up-to-date, accurate, easy-to-use and, probably most important, applicable in international business processes. There are many problems associated with name and address data in e-commerce checkout procedures. Determining whether shipping and billing addresses are valid is now a major business inhibitor. The xNAL based method of address management presented in this paper at the point of interaction with the customer (checkout procedure on website or call-center) virtually eliminates the possibility of entering wrong name and address data - all name and address data are validated against data supplied by the national postal authorities. On the other side, this semantic Web-ready solution provides the information available over the Web in a way understandable not only by humans but by computers too; this will allow a broad range of e-commerce and postal solutions to use the Web not only for displaying information as today do, but for more "intelligent" purposes, supporting sharing and reusing data across different applications and businesses, like track-and-trace or direct mail.

2006	19th Bled eConference	Nice Mobile Services do not Fly. Observations of Mobile Services and the Finnish Consumers	Christer Carlsson, Joanna Carlsson, Jussi Puhakainen, Pirkko Walden	When the short message service (SMS), was first initiated in 1992 nobody could foresee its tremendous popularity. Simple in design, easy to adapt and effortless to employ it rapidly became a profitable, matchless, globally used mobile service – referred to as a “killer application”. Ever since the quest for the next mobile service “killer application” has continued. Year after year the mobile service market(s) produce(s) new services and applications that due to complexity or lack of relevance fail to meet the consumers’ expectations. In this paper we will discuss three mobile services that commonly have been described as promising and innovative: mobile games, mobile television and snapshots with mobile phones, in an attempt to understand their potential for becoming successful services. We will study the Finnish mobile services market from two different viewpoints: on the one hand what Finnish experts and professionals on mobile commerce think the consumers want, and on the other hand, what the consumers actually use and will use in the future. In his way we will show some identifiable reasons for the discrepancies between mobile services offered and mobile services actually used. The analysis is based on our 2004-5 consumer surveys of mobile services combined with some insights from our 2004-5 Finnish expert studies on mobile commerce.
2006	19th Bled eConference	ICT Spending and Governance in Brazilian Public Administration	Nicolau Reinhard, Violeta Sun, Roberto Meizi Agune	This paper illustrates a typical pathway towards increasing electronic interaction with external business partners. Based on the case study of ETA SA, a Swiss manufacturer of watch movements and components, it explores current issues in portal-based B2B integration. In order to allow for tighter process integration with distinct customers, ETA conceives a multi-channel architecture which provides electronic services to customers using either direct or portal-based electronic channels. Since a multi-channel approach typically is associated with major integration challenges, the paper outlines and discusses the vision of service-oriented architecture for interorganizational integration.
2006	19th Bled eConference	An Empirical Study into User Problems with Thesaurus and Commercial Search Systems	Anthony Davies, Mandeep Kaler	Over the last decade Internet Service Providers (ISPs) have supplied affordable residential access to the internet. Traditionally searching techniques have mainly been self taught for the early twenty’s to thirty’s age group who had access to the internet but did not have the appropriate education. Now this group have careers or have gone into higher education and may be in the position where they need to search electronic systems or are teaching their searching skills to others. This paper establishes what problems this age group encountered when searching with little or no formal training of searching techniques. Volunteers were given search tasks on two search systems, the commercial search engine Google and the technical database thesaurus search system, INSPEC. It was found that many of the users performed efficiently when using Google but were uncomfortable with INSPEC and were quick to stop using the thesaurus feature when unsuccessful with initial queries. These results helped identify the need for formal training at both an early educational level and at a work level especially in today’s modern environment where a large proportion of research is conducted via the internet and the validity of data is paramount.
2006	19th Bled eConference	Pathways Home Project: Patient Self-management and Self-efficacy through the Deployment of ICTs	Elizabeth Cummings, Paul Turner	This research-in-progress paper presents an examination of, and reflections on, the challenges of using information and communication technologies (ICTs) to support patients suffering chronic respiratory conditions to achieve increased levels of selfmanagement and self-efficacy. These research insights arise as part of the planning and on-going implementation of the Pathways Home for Respiratory Illness project (Pathways). This project seeks to assist patients with either chronic obstructive pulmonary disease (COPD) or cystic fibrosis (CF) to acquire skills that empower them to comprehend and initiate action in relation to alterations in their conditions. The overall aim of Pathways is to evaluate the impact of these newly acquired skills for improving health outcomes at individual and population levels and is due for completion in 2008. Achieving benefits from the introduction of ICTs as part of processes aimed at building sustainable self-efficacy and self-management is very difficult, not least because of a desire to avoid simply replacing patient dependency on health professionals with dependency on technology. Reflections on the challenges and experiences within the project to-date illuminate some implicit assumptions underpinning existing IS models for evaluating impact in terms of adoption, usage and benefit and the end-points we presume in our system development processes.

2006	19th Bled eConference	What's the Use of Guidebooks in the Age of Collaborative Media? Empirical Evaluation of Free and Commercial Travel Information	Marco Prestipino, Felix-Robinson Aschoff, Gerhard Schwabe	The success of the collaboratively created encyclopaedia Wikipedia has already questioned the model of strict separation between professional content authors and readers. Distributed content creation using digital media promises faster updates, more opinions and expertise and large amounts of information produced at virtually no cost. But virtual communities on the Internet have long been offering an additional benefit: information in discussion spaces is tailored to a specific information need. However, there is a lack of empirical data about information quality provided by virtual communities. We present a design to assess information completeness of two media using independent evaluators. The design is applied to compare guidebooks with virtual communities about travelling. The results show that information completeness of virtual communities is up to popular guidebooks.
2006	19th Bled eConference	A Pilot Study of the Effectiveness of Privacy Policy Statements	Roger Clarke	An expectation exists, particularly in the U.S.A., that B2C web-site operators will provide public notice of their practices in relation to the personal data that they hold. Such documents are referred to in this paper as 'privacy policy statements' (PPS). Privacy is an important element in consumer trust, and hence in a consumer's decision to make purchases using Internet commerce services. PPS could therefore be expected to play an important role in overcoming the impediments to consumer purchases online. This paper adds to the growing research literature on PPS by developing a research design involving comparison of an organisation's PPS against a normative template. A pilot study of six B2C sites was undertaken, in order to assess the practicability of the design, and provide some initial substantive insight into the contributions that PPS currently make to consumer trust.
2006	19th Bled eConference	Exploring the Intricacies of Integrating with a Port Community System	Juan Rodon, Juan Ramis-Pujol	On the basis of an exploratory case study, this paper is intended to provide understanding on the intricacies associated with the integration of firms with a business sector information infrastructure (BSII) such as a port community system (PCS). Although there is some research on the implementation of PCS, these studies have rarely addressed the issue of integration of preexisting systems. We address this gap with a case study of a PCS in a Spanish port community, which, moreover, complements prior studies by adopting a processual socio-technical perspective on integration. Finally we elaborate implications relevant to the implementation of BSII.
2006	19th Bled eConference	PIM APPLICATIONS - An Explorative Study on Benefits and Barriers	Miira Juntumaa, Virpi Kristiina Tuunainen	In this exploratory study, we look into the emerging usage of Personal Information Management (PIM) applications on mobile devices. We collected data in two rounds of empirical investigation: first, with pilot users in an organization providing PIM services, then, in customer companies subscribing to these services. Our findings suggest that the benefits of PIM applications are mostly related to the users' personal work: planning schedules and work tasks, making mobile communication even easier, and increasing flexibility, and that the benefits for companies are mainly realized through the users' benefits. There are, however, still a range of barriers, ranging from difficulties in use and technical limitations to organizational level security concerns.
2006	19th Bled eConference	How Do Corporations Use Internet for Public Relations?	Jaka Lindič	In today's dynamic environment characterised by higher advertising costs and lower efficiency of advertising, corporations are relying more and more on public relations (PR). We present new Internet technologies that can greatly improve corporations' relations such as RSS feeds, blogs and podcasts. We have also conducted a thorough analysis of 50 largest world corporations' web sites. We present some of the findings from this research and conclude with suggestions on how PR departments could improve their efforts.
2006	19th Bled eConference	Are Privacy Issues Important in Mexican Online Markets? An Empirical Investigation into Published Online Privacy Statements of Mexican Web Sites	Celestino Robles-Estrada, Juan A. Vargas-Barraza, Ma. Dolores del C. Sepúlveda-Núñez	Electronic commerce has had a considerable development in the world; it always implies information exchange, -being it frequently personal information-, between Internet users and site owners. Providing such data to a website, when usually users don't even know where the company is located, has brought concerns about the use of private information by online business. Some countries have started to pass laws and guidelines regarding the use of private information gathered online, and also non government associations have started to certificate websites in the use and management of personal data. This study explores and analyzes the content of 120 privacy statements from online companies established in Mexico to address all privacy dimensions that seems to be important in online environment and to evaluate characteristics and differences in the use of the personal identifiable information among them. When possible, a comparison is made between some of the results of this research for companies operating in Mexico, and the findings made by Pollach (2006) for companies operating in U.S.A. Finally some possible future work is described and some conclusions are made.

2006	19th Bled eConference	E2SP. The Business Case of an Environmental Information System for Decision Support in ASP Mode	Mauro Cislighi, Robin Baker, Rafal Dunal, Elisa Negroni	<p>According to PSR (OECD) and DPSIR (EEA) models, Environmental Agencies are in charge of measuring the State and Pressure and evaluate the Impact in order to define the most suitable Responses; this implies data analysis and reporting activities, as one of their core responsibilities. Environmental Information Systems (EIS) support these activities by combining the advantages of first-rate consolidated technology such as Business Intelligence and Data Warehouses) to specific technical architectures tailored to environmental management tasks. E2SP (Environmental Enterprise Service Provider) is a online reporting and forecasting platform, providing a cost effective, Internet based EIS and Decision Support System in ASP (Application Service Provider) mode. Tasks such as data integration, data analysis through OLAP (On Line Analytical Processing), impact analysis and forecasts through mathematical models, emission inventories, indices/indicators calculation, reporting, are supplied in an integrated environment as on line services to public authorities and private industries. E2SP project, funded by the eTEN program of the European Commission, allowed to deploy two service centres and to develop the business case study, described in this paper, to verify the viability of the ASP approach to EIS in a trans-national context, starting from the air quality theme.</p>
2006	19th Bled eConference	A Hybrid Modeling Approach for Strategy Optimization of E-business Values	Chien-Chih Yu	<p>Value proposition, creation, and maximization are essential corporate objectives in e-business planning and operations, and thus constitute central tasks of the ebusiness strategic management. The goal of this paper is to provide a hybrid modeling approach that integrates the dynamic programming and the balanced scorecard models for strategy optimization of e-business values. Values from the market, supply chain, business organization, and customer perspectives are identified first based on a generic e-business model framework. In the subsequent value-based strategic planning stage, strategies with objectives and metrics for value creation in different perspectives are outlined. In the mean time, a multiperiod, multi-dimensional dynamic programming model is formulated for optimizing the expected total business value. In the value-based performance measurement stage, an adapted balanced scorecard model is developed to hold a balanced view for evaluating strategy performances regarding all value perspectives. The proposed modeling approach aims at providing e-business firms with clear and well-structured guidelines for efficiently and effectively handling complex decision and management activities including business model design, value identification, strategy formulation, as well as performance measurement.</p>
2006	19th Bled eConference	Personalisation of eSearch Services - Concepts, Techniques, and Market Overview	Kai Riemer, Fabian Brüggemann	<p>The importance of information in today's society is still growing and information search has become an essential task in both the workplace and in private life. eSearch services provide access to the abundance of information available on the Internet by means of search engine technology. However, conventional search engines have certain limitations in dealing with the typical information overload problems. With the application of personalisation techniques search engine providers aim at moderating some of the problems by providing users with information access individualised to their needs. The aim of this paper is twofold. Firstly, techniques for personalisation of eSearch services are introduced. Secondly, the results of an empirical study of the market for eSearch services are presented. Typical examples illustrate eSearch personalisation in practice, and the diffusion of techniques and implications for further research in the domain are discussed.</p>
2006	19th Bled eConference	Adoption and Diffusion of Digital Information Goods: An Empirical Analysis of the German Paid Content Market	Florian Stahl, Wolfgang Maass	<p>The rapid growth of the Internet and electronic commerce stimulates new digital innovations. Electronic markets can influence both adoption and diffusion processes of digital innovations in significant ways. The difficulties for market transactions of information goods and the change from free to paid content on websites in the last years has led to research questions about how individuals decide whether and when to adopt paid content innovations and how this innovation diffuses throughout a population. This article presents empirical evidence about the adoption and diffusion process of paid content. It focuses on the differences of the adoption and diffusion process of different paid content product types if there exists an established, non-digital counterpart. The results in this paper help media managers to design business models for paid content by forecasting the adoption and diffusion process of the offered digital content product.</p>



2006	19th Bled eConference	eBusiness Change Management in SMEs: An Initial Investigation	Anthony Davies, Ceri Evans, Martin Parfett & Andrew Emery	Very little has been published on best practice approaches to managing eBusiness change for SMEs, particularly at the level of the small business. SMEs are however increasingly implementing more advanced eBusiness solutions, and in turn could benefit from adopting a more informed manner to taking on some of these change management challenges. This potentially has implications in terms of the long-term cost of implementing eBusiness change, and has relevance to future uptake of eBusiness. This exploratory paper presents work conducted as part of the Opportunity Wales Advance Welsh eBusiness support initiative. It focuses on understanding more about issues related to the management of staff in SMEs when moving forward with eBusiness change. The paper concludes there is need for firstly, greater consideration of these softer skills in eBusiness training, and secondly, a more integrative approach to eBusiness change management training and education – rather than eBusiness and change management being considered as separate disciplines. The case study approach used in this paper also presents a number of interesting examples of the change management challenges that can arise, and illustrates how the SMEs overcame these.
2006	19th Bled eConference	Convention on E-Contracting: The Rise of International Law of Electronic Commerce?	Paul Przemyslaw Polanski	On 23 November 2005 the United Nations General Assembly adopted a new Convention on the Use of Electronic Communications in International Contracts. The Convention on e-contracting is the most important and long awaited development in international electronic commerce law. This paper analyses the most important provisions of this convention and its potential impact on global electronic commerce. The new Convention aims to enhance legal certainty and commercial predictability of international contracts where electronic forms of communication are used. Being primarily concerned with the formation of electronic contracts, it recognizes the value of electronic communications and modernizes the terminology of older conventions to embrace the impact of digital technologies. Another advantage of the Convention is its broad scope of application as it goes beyond sale of goods and covers trade in services and information. It also confirms widely recognized principles such as that of functional equivalency or irrelevancy of the geographical location of information systems. However, it also has certain shortcomings. It does not deal with important areas of electronic commerce such as B2C e-commerce or online financial transactions. Furthermore, many provisions are of general nature and hence may actually introduce more legal uncertainty than predictability. In addition, the Convention is not binding yet. The knowledge of potential pros and cons of the Convention can become very useful for any businessmen engaged in global electronic commerce.
2006	19th Bled eConference	eStrategy and ICT Investment in Slovenia	Maja Bučar, Metka Stare and Andreja Jaklič	Empirical findings show that investments in information-telecommunication technologies (ICT) contribute significantly to the economic growth at macro and micro level. At the same time, we witness a slowdown in ICT investment in Slovenia, in spite of the fact that there still exists a gap in the level of ICT use in comparison to more developed countries. The article presents main findings of different approaches to measuring the impact of ICT in Slovenian firms. A positive impact of ICT is found primarily with intensive ICT users, which should stimulate all firms to further invest in the area. Since on the contrary a slow-down in investments in ICT is occurring, we claim that Slovenian firms lack a coherent long-term eStrategy. Such behaviour may result in under-exploitation of the potential that ICT can have for productivity growth and competitiveness of companies.
2006	19th Bled eConference	A Measurement Model for Web-enabled Supply Chain Integration	Tim McLaren	Recent developments in supply chain management information systems have greatly increased the ability of firms to integrate processes, systems, and information with their supply chain partners. Despite the apparent benefits of web-enabled supply chain integration, its further study and application is hindered by the lack of an empirically supported model for classifying the varying levels of supply chain integration that are now possible using e-business technologies. This paper presents findings from a multiple case study used to explore web-enabled supply chain integration and identify potential questionnaire measures for further study. The questionnaire findings were corroborated by rich qualitative evidence from the five manufacturers studied, but highlighted several issues in measuring integration in web-enabled supply chains. In contrast to well-publicized examples such as Dell Computer, the cases studied exhibited a very modest level of supply chain integration, despite each having large investments in supply chain partnerships. This discrepancy highlights the need to measure supply chain integration using empirically-supported models such as the one described, rather than relying on managerial assumptions about how integrated a firm is with its supply chain partners.

2006	19th Bled eConference	A Study of Ecommerce Risk Perceptions among B2C Consumers: A Two Country Study	Easwar A. Nyshadham, Monica Ugbaja	The ecommerce environment is fairly new, and several risks associated with it are novel to consumers. Consequently, e-consumers may not have developed an appropriate mental picture (i.e., a schema or a perceptual map) of these risks. For example, identity theft, a serious risk that became prominent after ecommerce has become popular, is still not well understood by most consumers. Thus, it is not clear how consumers participating in ecommerce perceive the risks. Existing ecommerce studies do not focus on risk per se; instead, they use very general constructs and measures of risk derived from general psychology and management studies in contexts other than ecommerce. Implicit in these studies is the assumption that the dimensions of perceived risk in ecommerce context are well understood. In this study, we use the psychometric paradigm to investigate how consumers organize novel online risks in memory. Data collected from consumers in two countries and analyzed using Multidimensional Scaling techniques shows significant differences in how consumers organize risks in their memory. This study is still in progress and preliminary analysis is presented.
2006	19th Bled eConference	An Empirical Analysis of the Demand for E-Services for Virtual Communities of Patients	Achim Dannecker, Ulrike Lechner	Virtual communities of patients provide health-related information and mutual support for members. This paper presents a structured analysis of virtual communities of patients and the demand for novel electronic services. Results include success factors of virtual communities of patients, the structural relations between success factors, demand for new and long-term members and newly and long-term affected patients.
2006	19th Bled eConference	Mobile Service Bundles: The Example of Navigation Services	Timber Haaker & Henny de Vos, Harry Bouwman	In this paper we explore which bundles of services are attractive to users. We look specifically into bundle composition with navigation services as core, and travel and entertainment related services as complementary services. Pricing is an important criterion as well. We use conjoint measurement as a tool to assess which combination of services and price is the most attractive for users. We find that enhanced services, i.e. services that reinforce the functionality of the core navigation service are more relevant than supplementary services. Traffic information, safety alerts and parking support have positive utilities. However, pricing has a higher predictive value.
2006	19th Bled eConference	E-Book Technology in Libraries: An Overview	Linda Wilkins, Paula M. C. Swatman, Elsie S. K. Chan	The shift towards electronically mediated texts entails major structural issues for libraries and the publishers and aggregators who supply them. Stakeholders within the digital supply chain are struggling to re-conceptualise the book as artefact (Esposito 2003). Academic and scholarly libraries are at the forefront of these changes and many are preparing for a significant shift from physical to electronic material presentation within the next few years. Within this context, we review some recent developments in the technology underpinning e-books, evaluate a number of e-business publishing models and introduce some of the key players.
2006	19th Bled eConference	Towards Value-based Design Patterns for Inter-Organizational Control	Vera Kartseva, Joris Hulstijn, Yao-Hua Tan, Jaap Gordijn	We present control patterns: a framework for designing and analyzing interorganizational control mechanisms, inspired by design patterns. A control pattern is a generic solution for some recurring control problem, applicable in a certain context. The patterns are based on internal control theory from the accounting and auditing fields, and on previous work on inter-organizational controls. The application of the patterns is supported by the e3-control methodology, which is based on the e3-value business modeling tool. The patterns are applied in a case study.
2006	19th Bled eConference	Implementing a Mobile Wireless Environment in a Hospital Ward: Encouraging Adoption by Nursing	Julie Fisher, Linda Dawson, Stephen Weeding, Liza Heslop	Sophisticated technology is commonplace in most hospitals and increasingly mobile devices are being used in hospitals by clinical staff. Although the growth in mobile device usage in hospitals has the potential to contribute to better health and medical services delivery, nurses and doctors are still very reliant on paper-based information. Much of the research reported to date has focused on technical and design issues around mobile devices. Research that has focused on mobile device use in practice has tended to be from the perspective of doctors. This paper describes research which investigated key issues that arose as a result of the implementation of mobile wireless (MW) devices in a hospital ward from the perspective of the nursing staff. Although some of the nurses' concerns related to technological aspects the main concerns focussed on access to, and security of the devices and organisational implementation problems they experienced. From the findings we have identified the factors that need to be addressed in the implementation environment for successful adoption of the technologies. Further, we propose a holistic approach to the introduction of MW technologies in hospital ward settings.

2006	19th Bled eConference	An Investigation of eMarketing within the Second Hand Book Trade	Annabel Lloyd-Jones, Anthony Davies	This Case Study investigates the need of independent booksellers to transfer some of their existing business on-line in order to meet customer demands and competitive pressure. The growth of eCommerce has had an impact on rurally located independent booksellers who can no longer rely on the loyalty of their customer to travel to them which has had a subsequent effect on the sustainability of the economy. This research concentrates on establishing existing customer demographic behaviour towards purchasing books online, defining the on-line customer segmentation and establishing whether they recognise the Internet as an effective tool with which to purchase books. It also evaluate which aspects of the marketing mix known as the 7Ps, customers perceive as significant (or not significant) and investigate how competitors are dealing with the impact of the Internet on their business. The results of this Case Study show that in order to offer eValue to their customers and maintain competitive advantage, the booksellers will need to offer the convenience of purchasing on-line, whilst concentrating on offering excellent customer service, which will include a user friendly Web site.
2006	19th Bled eConference	An STP-Approach Focused on Customer Preferences for Mobile Business Applications	Bernhard Goldberger, Gernot Wörther, Michael Weber, Michaela Denk	This paper presents an empirically validated approach to decide whether to launch a ready developed product. Although it is best to integrate customer preferences in the development of a new product, this is not always done in everyday business. The method described was successfully applied in such a case. It assists decision makers twofold: First, a swift and cost efficient scan of ready developed products is demonstrated in order to sort out potential failures. Second, the collection and evaluation of empirical data with the help of a statistical software tool is illustrated and demonstrated by its application in a recent mobile R&D project. The featured approach enables decision makers to eliminate weak products and to increase the quality of launch decisions for promising products by the employment of a marketing decision model.
2006	19th Bled eConference	Evolution of Process Portals to Multi-Channel Architectures - A Service-Oriented Approach at ETA SA	Jan W. Schemm, Christine Legner, Rudolf Zurmühlen	This paper illustrates a typical pathway towards increasing electronic interaction with external business partners. Based on the case study of ETA SA, a Swiss manufacturer of watch movements and components, it explores current issues in portal-based B2B integration. In order to allow for tighter process integration with distinct customers, ETA conceives a multi-channel architecture which provides electronic services to customers using either direct or portal-based electronic channels. Since a multi-channel approach typically is associated with major integration challenges, the paper outlines and discusses the vision of service-oriented architecture for interorganizational integration.
2006	19th Bled eConference	An Open Source Approach to Medium-Term Data Archiving	Sherine Antoun, John Fulcher, Carole Alcock	Medium- to long-term archiving of digital documents, beyond the lifespan of the authoring software/hardware, is a challenging problem. Magnetic and optical media are susceptible to environmental influences and deteriorate over time, often to the point where the archived documents can no longer be retrieved. Previous attempts to address this problem include migration and emulation, both of which have their attendant difficulties. It is the contention of the present study that an Open Source approach offers several advantages. More specifically, by archiving the Open Source application programs (in source code, not executable form) along with the documents in question, in both plain and compressed form, significantly increases the likelihood of being able to retrieve such archives at some future time. The application source code can be recompiled to a form suitable for reading in (Open Source) viewers, thereby presenting to the user the archived document as the original author envisaged it. One set of experiments was undertaken distributing documents together with their (Open Source) authoring software via a Portable Virtual Machine (PVM) program to unused disk space on a network of SUN workstations. The success of this approach was evaluated using the following four measures: (i) lossiness of conversion, (ii) editability, (iii) ability to save back to the original format, and (iv) functionality retention. Another series of experiments was conducted in which artificial ('speckle' or salt-and-pepper) noise was deliberately introduced to the archived documents in order to mimic degradation of the storage medium over time. It was found that survivability was heavily dependent on file type: simple text files and MPEG movies were impervious to even 18% introduced noise. Source code programs and JPEG images, by contrast, were intolerant to even the smallest noise levels (it has to be said however that straightforward re-editing of the former led to error-free compilation without much difficulty). Lastly, it was found that decompression (specifically the publicly available RAR decompressor) further enhanced the file recovery process. We conclude that an Open Source approach to the preservation of digital archives has considerable potential.

2006	19th Bled eConference	Towards an Excellence Framework for Business Interoperability	Christine Legner, Kristin Wende	Organisations that wish to establish IT-supported business relationships with business partners face major challenges, among them the need for creating a win-win-situation and the effort to align business processes and link up information systems across company borders. Whereas interoperability has been widely discussed in a technical context, it has not (yet) been explored how interoperability relates to the business strategy and organisational design of the business relationship. This paper explores interoperability from a business perspective and identifies the fundamental artefacts related to business interoperability. Building on contingency theory, it outlines a comprehensive framework suggesting a fit between the level of business interoperability and environmental as well as internal contingencies.
2006	19th Bled eConference	Usage of a Mobile Medical Information System: An Investigation of Physicians in the Military Service	Shengnan Han, Ville Harkke, Mikael Collan, Franck Tétard	This paper sets out to investigate military physicians' perceptions and usage regarding a mobile medical information system during their military service in the Finnish Defence Forces. Data were gathered in September and December of 2005 by two semi-structured surveys. The military physicians (n=31) had positive perceptions of the mobile system, and have used it in their daily military training. They showed a few negative opinions on the usefulness of the system in the real military field conditions and crisis situations. They favoured using the mobile system to support their learning and training, and keep their medical knowledge up-to-date anywhere and anytime. Insights of the findings and implications for system improvement are discussed.
2006	19th Bled eConference	The Co-evolution of an Accessible but Secure Virtual Space for Collaborative Activities	Kate Crawford, Helen Hasan	This paper describes, analyses and interprets a research and development process taking place over several years concerning the evolution of a socio-technical system. By 'sociotechnical system' we mean a dynamic system that is socio-culturally situated and involves both human activity and technical elements. The system design, that is the focus of this research, brings together the human and technical dynamics of the intricate and highly engaging processes of effective collaboration. In particular, an investigation of the various integrated elements of the socio-technical system has provide us with the insight and confidence to build a virtual environment that actually supports innovative collaborative activities.
2006	19th Bled eConference	The Worth of Anonymous Feedback	Heinz Dreher, Hermann Maurer	Prima facie it is accepted that anonymity is an important feature of eLearning systems. It is easy to implement. But this simplicity belies its more serious implications, especially regarding the worth which can be attached to results derived from the interpretation and analysis of anonymously collected data. A sample of eLearning implementation cases is reviewed from the point of view of anonymously collected data for evaluation of educational quality. A reiteration of an earlier analysis of levels of anonymity leads to the introduction of the Anonymity-Purpose-Worth matrix. It is contended that if the matrix is used to characterise the data collection and analysis in eLearning evaluation settings, the worth of feedback can be better appraised and acted upon. Practitioners, researchers, and students in the eLearning field will benefit as the anonymity conditions will be clearly documented in a standardised and comparable manner.
2006	19th Bled eConference	Changing the Firm's Digital Backbone: How Information Technology shapes the Boundaries of the Firm	Stephan Billinger, Michael G. Jacobides	How does Information and Communication Technology (IT) influence boundaries within and across organizations? Most of the research to date has considered the impact of technologies linking buyers and suppliers, focusing on interorganizational technology such as electronic markets. Our paper takes a different view, focusing on a firm's overall boundaries, as opposed to individual make-or-buy decisions that an electronic market would manage. Drawing on a large apparel manufacturer's vertical redesign, we show that different types of IT play different roles in boundary design. We find that "mediating" technologies that link two parties (e.g. Electronic Data Interchange or e-markets) are not as critical as "architectural" technologies (e.g. Enterprise Resource Planning systems) in shaping firm boundaries. We consider how IT, and in particular architectural IT, helps create easily re-configurable "vertical packages", i.e. configurations of business processes that fulfill a distinct business need. We find that IT facilitates the optimization of an organization's resources and capabilities and thus increases a firm's flexibility. We also predict that recent developments in Enterprise Resource Planning (ERP) systems will have substantial impact on organizational design.

2006	19th Bled eConference	Factors Affecting Perceived Impact of Electronic Marketplaces	Eleftherios Kioses, Katerina Pramatai, Georgios Doukidis	<p>Although B2B e-commerce represents today an important business activity with stable growth, it has not grown according to initial expectations, partly due to the difficulty in measuring its performance. Recent academic literature tries to explain the motivations and behavior of companies participating in electronic markets as well as the benefits deriving from this participation. Following this stream of research, the purpose of this paper is to present the preliminary results of a field survey studying e-marketplace participation across two dimensions: The first one examines the attitude of user companies towards e-marketplace participation (motivations, goals, expectations, fears etc.). The second dimension examines the perceptions of e-marketplace participants about the impact and benefits they derive from their participation as well as the factors affecting the perceived impact. The survey was conducted using a questionnaire, among participants of five e-marketplaces (a total of 62 companies participated), allowing for comparisons both between buyers and sellers and between different types of emarketplaces. The statistical analysis of the quantitative results renders interesting findings that come to confirm or compliment existing literature and indicate concrete directions for further research. The results indicate a generic transaction-based orientation of the e-marketplace participants towards the exchange, the negative effect of external pressure on benefits perception and the importance of participating years and company size to the impact of e-marketplaces.</p>
2006	19th Bled eConference	A Business Model Research Schema	Susan Lambert	<p>This paper suggests a schema for business model research that has the potential to progress the research, in a structured manner, from conceptual to theoretical. It draws on the scientific and business research literature to identify the types of research necessary to further knowledge and promotes the inductive-deductive model of research. The importance of conducting empirical research to evaluate current conceptualisations of business models and developing a theory of business models is stressed. An important aspect of any research agenda is the creation of a general classification of domain objects that can serve a wide range of current and future uses. Classification literature relating to the biological, behavioural, organisational and social sciences has been referenced in this paper in support of this claim. Existing classifications of business models are evaluated, determining that the only classifications that have been proposed to date are typologies and that no general taxonomy of business models currently exists.</p>
2006	19th Bled eConference	The Effectiveness of Australian Medical Portals: Are They Meeting the Health Consumers' Needs?	Jane Moon, Julie Fisher	<p>The move to using portals to distribute medical information is supported by Australian Governments and government agencies. The recent success of 'telemedicine' is promising for patients and governments alike as it could provide quality care and convenience for patients and reduces the burden on the health budget for governments. The Australian Government is taking a proactive role in developing medical portals to encourage the general use of the web for the dissemination of medical information (NHIMAC, 2000). Government portals such as HealthInsite (Australian) and BetterHealth (Australian Victorian Government) encourage users to access the sites (NHIMAC, 2000).. Despite the support by governments, usability tests examining portal effectiveness indicate that many portals are not effective for users. This paper presents the results of usability testing conducted on current Australian medical portals and discusses the portals' effectiveness from the users' perspective. The paper also discusses current technology that could improve medical portals' effectiveness thereby better serving the needs of the health consumer.</p>
2006	19th Bled eConference	eCustoms Innovation and Transformation: A Research Approach	Yao-Hua Tan, Stefan Klein, Boriana Rukanova, Allen Higgins, Ziv Baida	<p>A major challenge for European governments is solving the dilemma of increasing security and control of international trade, while at the same time reducing the administrative overhead carried by commercial and public administration organisations. Electronic Customs, the transformation of paper-based trade documents to electronic ones, and the corresponding redesign of customs procedures, seems to be very promising approach to deal with this dilemma. However, while ICT is widely perceived as a key component of a solution, we argue in this paper that the complexity of the redesign of these electronic documents and procedures for international trade is far more problematic than traditional business process and network innovations. We identify key challenges facing the development and introduction of innovative eCustoms solutions and we outline conceptual and methodological approaches to address these challenges. In such a way, we outline a research approach for eCustoms innovation and transformation.</p>

2006	19th Bled eConference	The New Economy, eValue and the Impact on User Acceptance of Pervasive IT	Elitsa V. Shumarova, Paul A. Swatman	This paper explores the nature of eValue creation, assessment and distribution within communities joined through the Web, and the possible implications on end user acceptance of pervasive information technology (IT). Specifically, we draw on developments of the "new economy" in order to understand the nature of "value" within electronic networks, and its effects on the moderators of user acceptance. The focal point of interest is the adoption-diffusion continuum, from prior use to postadoptive behavior, within the context of attention getting and attention giving. A rough typology of eValue classes is introduced as a secondary epistemological level to aid clarifying when and how value-rational end-consumer action affects attitude toward use. The analysis strives a unified view on user acceptance decision processing, combining the management perspective (Cooper & Zmud 1990), the user perspective (Rogers 1995), the organizational perspective (Swanson & Ramiller 2004), with emphasis on the information processing perspective (Engel et al. 2001).
2006	19th Bled eConference	Consumer Involvement in Developing Services Based on Speech Technology	Eva Heiskanen and Kaarina Hyvönen	This paper focuses on enhanced consumer involvement in service development. The study was conducted in the context of speech recognition technology and its applications to telephone services. These services are just entering the market; issues of usability, utility and acceptability are thus crucial. We evaluate the usefulness of quantitative and qualitative methods for consumer involvement and their contribution of ideas and improvements for product development.
2006	19th Bled eConference	Vision and Valuation of a Citizen-Centric Shared Information Portal	Wil Janssen, Paul Zeef	The administrative burden the government puts on citizens is substantial, whereas, generally speaking, service levels are low and a 'customer' orientation is lacking. There is a growing understanding that e-government can play an important role in tackling these issues by better exchange of information and electronic availability. This paper reports on the development and evaluation of an e-government vision as part of a strategic planning trajectory for the social security sector and other government agencies in the Netherlands. The vision approaches governmental service delivery from the citizen viewpoint and helps governmental organisations to take service- and citizen orientation to a higher level. The concepts used in the vision were tested by boardroom sessions as well as a survey, and has become the guiding principles for a number of e-government developments.
2006	19th Bled eConference	The Importance of ICT: An Empirical Study in Swiss SMEs	Petra Schubert, Uwe Leimstoll	Very little has been published on best practice approaches to managing eBusiness change for SMEs, particularly at the level of the small business. SMEs are however increasingly implementing more advanced eBusiness solutions, and in turn could benefit from adopting a more informed manner to taking on some of these change management challenges. This potentially has implications in terms of the long-term cost of implementing eBusiness change, and has relevance to future uptake of eBusiness. This exploratory paper presents work conducted as part of the Opportunity Wales Advance Welsh eBusiness support initiative. It focuses on understanding more about issues related to the management of staff in SMEs when moving forward with eBusiness change. The paper concludes there is need for firstly, greater consideration of these softer skills in eBusiness training, and secondly, a more integrative approach to eBusiness change management training and education – rather than eBusiness and change management being considered as separate disciplines. The case study approach used in this paper also presents a number of interesting examples of the change management challenges that can arise, and illustrates how the SMEs overcame these.
2006	19th Bled eConference	Intellectual Property Law versus Customs and Values of the Internet Community	Paul Przemyslaw Polanski	The emergence of the Internet has not only enabled widespread copying of digitized music, videos and information but has also facilitated sharing of these resources. Despite the fact that international conventions grant authors and other right holders a number of exclusive rights including the right of reproduction and the right of distribution of their works, Internet community seems to follow a distinct set of norms. The objective of this paper is to present the examples of common practices developed by Internet companies and users in the area of intellectual property. The norms of Internet users are so widespread in the international electronic commerce that they could serve as the basis for adjudicating disputes in the online world and be regarded as reflecting the values of Internet community. Governments could utilize the knowledge of Internet practices to supplement national and international regulation of electronic commerce. The knowledge of electronic commerce customs could thus enhance Internet-related legislation and make it better adjusted to the needs of the knowledge-based economy.

2006	19th Bled eConference	Matching Complex Consumer Needs with e-Service Bundles	Sybren de Kinderen, Jaap Gordijn, Hans Akkermans	e-Services are commercial services that can be ordered and provisioned via the Internet, satisfying a consumer need. Sometimes, such services are provisioned by a constellation of enterprises, and consist of multiple elementary services. A problem is then how to configure such a constellation, satisfying a complex consumer need. To this end, we extend the notion of consumer need in the e3value methodology, as originally intended for designing value constellations. We also show how needs can be (automatically) matched with services provisioned by suppliers. As such, our contribution can be seen as a first step towards on-demand dynamic value constellations, provisioning e-services.
2006	19th Bled eConference	RFID's Potential in the Fashion Industry: A Case Analysis	Claudia Loebbecke, Jonathan Palmer, Claudio Huyskens	The case examines a project between a leading European retailer, Kaufhof Department Stores, and fashion merchandise manufacturer Gerry Weber utilizing RFID (Radio Frequency Identification). It shows how both players experienced significant cost, time, and inventory management improvements over the course of the 5-month project. These performance improvements occurred at both the warehouse level and in the stores. Lessons learned and the challenges of integration, standardization, and RFID price levels are also discussed.
2006	19th Bled eConference	Comparing Value Propositions with Users' Perceptions to Better Understand the eValues of Electronic Marketplaces	Carine Dominguez	In this paper, we question the nature and dimensions of eValues. We apply our approach to electronic marketplaces (EMPs), as an illustration of interorganizational information systems. The research is based upon 50 interviews made in 6 EMPs, and a thematic analysis on the themes linked to "the value of EMPs". Our results categorise the different perceptions of eValues according to the different profiles: the value proposition of EMPs' managers and the perceived values of buyer and supplier managers. We highlight that eValue is a key component that helps to distinguish three types of EMP business models: the Buy-type, the Supply-type and the Indus-type. Finally, we discuss the orientation of each business model according to the current value it offers to customers, and conclude that the concept of eValue questions the design of the model of revenue of EMPs.
2006	19th Bled eConference	Presence-based, Context-sensitive Real-Time Collaboration (RTC) - research directions for a new type of eCollaboration system	Kai Riemer, Frank Frößler	This paper presents Presence-based, Context-sensitive Real-Time Collaboration (RTC), a new and emerging eCollaboration technology that has its roots in both the telecommunications and groupware market. The aim of the paper is twofold. Firstly, it offers a conceptualisation of RTC consisting of usage scenarios and four main building blocks – integration of communication channels, presenceawareness information, context integration, and further eCollaboration features. Secondly, the paper intends to offer a starting point for future research on RTC as it attempts to touch upon and systematise different research directions and typical questions for researching RTC in the future in order to understand the organisational implications of this complex and embedded information system.
2006	19th Bled eConference	Creating a Virtual Culture through e-Collaboration	Peter Gall, Janice Burn	This paper reviews the literature in relation to virtual organisations and eCollaboration. From this, the authors develop two instruments to measure the espoused readiness of the organisation to collaborate virtually and the actual preparedness to operate virtually. These instruments are validated in an eCollaboration environment to measure the extent of alignment of virtual values and virtual culture. The results can assist organisations to develop a virtual strategy and to measure effective implementation.
2006	19th Bled eConference	'What's in It for Me?': Taking M-Government to the People	Jennie Carroll	M-government involves the use of mobile technologies in the provision of public sector services. Currently, there are powerful political, economic and technical drivers for the development of m-government. Less attention, however, has been paid to the users of mobile technologies and their likely uptake of m-government services. This paper makes two contributions to our growing understanding of m-government. The paper presents a framework that facilitates analysis of the influences on the implementation and likely uptake of m-government. The framework provides the context for investigating one influence on the success of m-government programs: citizens' needs and desires to access public sector services through mobile technologies. The findings of empirical studies of mobile technology use provide the basis for drawing lessons for the development of mgovernment services that satisfy citizens' needs.
2006	19th Bled eConference	Modelling Pricing for Configuring e-Service Bundles	Benito de Miranda, Ziv Baida, Jaap Gordijn	To offer online bundles of independent e-services, software is needed that composes services of different enterprises into a bundle of services, satisfying a complex consumer need. In earlier research, a service ontology – a formalized conceptual model of services – has been developed for such software-aided service bundling. This ontology, however, did not include constructs to reason about the prices of services, while these are needed to realize and offer service bundles online. In this paper, we present an extension of the service ontology with pricing models for e-services. Examples from real-world services are used to illustrate how pricing models of services can be modelled by domain experts, and prices of service bundles can be calculated by software using the extended ontology.

2006	19th Bled eConference	Empirically Evaluating Determinants of Netsourcing as Innovative eBusiness Sourcing Opportunity	Claudio Huyskens, Claudia Loebbecke	Netsourcing describes an eBusiness subset of overall IT outsourcing, in which companies can selectively source software applications from external providers via the Internet. Companies which netsource seem to enjoy cost and flexibility improvements compared to those which develop and operate software applications in-house. For investigating netsourcing, we draw on full outsourcing research for a possible theoretical grounding. Literature on IT outsourcing offers several research streams suggesting determinants and explaining value creation through and pitfalls due to IT outsourcing. In order to narrow those perspectives down, we use a research framework based on two theoretical approaches, strategic management and transaction cost economics. We survey a sample of the 500 largest German companies to investigate netsourcing determinants. Competitive relevance of an application, strategic vulnerability, technical specificity, human capital specificity, transaction frequency, and transaction uncertainty are supported as determinants of a company's netsourcing decision. After some lessons learned and the respective managerial implications, we point to some conceptual limitations of the study and conclude with a summary and a research outlook.
2006	19th Bled eConference	Virtual Communities of Practice for Regional Small Businesses: Bringing Informal Networks Online	Cecily Mason, Tanya Castleman, Craig Parker	Virtual communities of practice (VCoPs) are online business networks which are increasingly used by large organisations as a key strategy for creating value in the knowledge-based economy of the 21st Century. This paper examines the applicability of VCoPs to cross-industry regionally clustered small business networks. Interviews conducted with government and industry informants in two regional areas of Australia indicate that these strategies used for establishing VCoPs are applicable to such small business networks. Both regions had regional networks with active member involvement displaying CoP characteristics. Significant social capital existed on which VCoPs could be built, and there were viable alternatives to satisfy the roles of sponsors and leaders. There were, however, significant impediments that will have to be addressed before VCoPs can be implemented such as the apparent reluctance of many SME owners to use the Internet and ICT generally, and the preference for informal networking. Funding to ensure that VCoPs are sustainable was also an issue. VCoPs appear to be extremely useful in linking small businesses in regional areas and in the development of viable regional clusters.
2007	20th Bled eConference	Enabling Successful Web-based Information Technology Support for Enterprise Customers: A Service Provider Perspective of Stakeholder-based Issues	Vanessa Cooper, Sharman Lichtenstein, Ross Smith	An understanding by support organisations of the key factors enabling successful enterprise after-sales customer support provision when using Web-based Selfservice Systems (WSSs) is essential to making improvements in such systems. This paper reports key stakeholder-oriented findings from an interpretive study of critical success factors (CSFs) for the transfer of after-sales support-oriented knowledge from an information technology (IT) service provider to enterprise customers when a WSS is used. The findings suggest that researchers and practitioners should consider WSSs within a complex network of service providers, business partners and customer firms. The paper also clearly points to a need for support organisations to engage in greater collaboration and integration of WSSs with enterprise customers and business partners.
2007	20th Bled eConference	eBusiness Lab - A Living Lab environment for educational and R&D purposes	Carl-Johan Rosenbröijer	In this article an eBusiness Lab of Arcada Polytechnic in Helsinki Finland is presented and discussed. The purpose of the article is to discuss the development, the conceptual approach and the practical use of the eBusiness Lab. We first give a background to what the eBusiness Lab is and why it was developed. The eBusiness Lab is based on the core competences of the Business Administration programme at Arcada. The core competence areas are logistics, accounting and marketing. The framework within which we started to plan this laboratory is our distribution approach that is presented in the article. The eBusiness Lab is then discussed from two main perspectives. First the perspective of how the lab is integrated in the education in our business administration programme. Second from the perspective of how the eBusiness Lab is integrated in the research and development work at ARBIT, "Applied Research in Business and IT". Finally in the article we propose some tentative ideas of how the eBusiness Lab could be developed in the future.



2007	20th Bled eConference	Self-service on the Internet: An Explanatory Model	Dave Oliver, Celia Romm Livermore, Neveen Awad Farag	This paper describes research that identifies and classifies the dimensions of selfservice activity enabled through the Internet. Self-service is effected by organizations providing ways and means whereby customers perform tasks related to the procurement of goods and services. We describe how an instrument used to measure Internet based self-service was developed, validated and applied. The results from the application of the instrument across a large number of websites covering a range of industries, countries and cultures are analysed and discussed. The study supports our initial model in which type of industry, level of technological development, and cultural factors are proposed as explanatory variables for web based self-service. We conclude with an assessment of this programme of research's achievements so far.
2007	20th Bled eConference	Does your role in a networked value constellation match your business strategy? - A conceptual model-based approach	Vincent Pijpers, Jaap Gordijn	Due to the worldwide connectivity provided by the Internet, organizations are able to participate in dynamic networked value constellations; networks in which organizations jointly create value and satisfy customer needs. Participating in a networked value constellation does however increase the complexity of an organization's environment, making correct and deep understanding of the organization more complex. In this paper we utilize the business modeling techniques e3value and e3forces to (1) understand a networked value constellation and how a specific organization is interwoven in this constellation, (2) understand the strategic position of an organization surrounded by environmental forces and, (3) analyze if the business strategy, as chosen by an organization, is consistent with its position in the networked value constellation. An industrial strength case study was conducted in the Dutch aviation industry.
2007	20th Bled eConference	An e-Transformation Study Using the Technology–Organization–Environment Framework	Judy E. Scott	Aviation information in the cockpit and on the ground was almost entirely paper based until a decade ago, when a digital future became apparent. This digital future requires industry transformation, which is influenced by the technological, organizational and environmental (TOE) context. This study uses an adapted ebusiness TOE framework to analyze drivers, facilitators, inhibitors and benefits of e-transformation and also presents challenges and key lessons learned.
2007	20th Bled eConference	Improving the Performance of Business Networks in E-Government	Reza Torabkhani, Martin Smits, Gert van der Pijl	Strategic alignment between business and IT is known to be important for achieving good business performance in one organization. It is not clear how strategic alignment influences the performance of a business network consisting of multiple organizations. This paper presents a method to assess inter-organizational Extended Strategic Alignment (ESA) based on the analysis of inter-organizational alignment processes consisting of drivers, levers, and impacts. The method is applied to a large e-government network for social security in the Netherlands between 2002 and 2006. Six examples of ESA were found, all being very complex and time-consuming sequences of activities. Six years after the government decision to implement the new Social Security Act, none of the six ESA examples has resulted in significant improvement of business or IT performance.
2007	20th Bled eConference	Measuring the business value of electronic supply chain collaboration: The case of electronic invoicing	Eleftherios Kioses, Katerina Pramatar, Georgios Doukidis, Cleopatra Bardaki	In the last decade, supply chain management has changed its focus, centring now on value creation, by taking into consideration the recent trends of partners integration and implementation of internet technologies. Within this context, this paper presents measurable results regarding the business value of supply chain collaboration practices enabled by e-commerce technologies. The presented research addresses electronic supply chain collaboration by examining the case of electronic invoicing (the electronic exchange of invoice data between supply chain partners) as a type of collaborative message-based system. The paper presents the quantitative and qualitative results of a series of case studies from the grocery retail sector. The results indicate considerable cost savings, especially as the extent of collaboration increases. Additionally, qualitative results from the interviews are provided, supporting suggestions for future research.
2007	20th Bled eConference	NIM -land: the quest for useful mobile services	Ville Harkke	A programme for developing and testing mobile systems for tourists is underway in the -land Islands. The aim of the programme is to develop, launch in full scale, and test some innovative services. In this paper two of the services are presented and possible testing methods are discussed.

2007	20th Bled eConference	RFID-enabled supply chain collaboration services in a networked retail business environment	Cleopatra Bardaki, Katerina Pramadari, Georgios I. Doukidis	Since the early 1990s, there has been a growing understanding that supply chain management should be built around information sharing and collaboration among supply chain partners. The emergence of RFID technology is expected to revolutionize many of the collaborative supply chain processes and to empower new collaboration scenarios, such as anti-counterfeiting, product recall and reverse logistics, collaborative in-store promotion management and total inventory management. This paper proposes eight RFID-enabled supply chain collaboration services (e.g. dynamic pricing, smart recall, in-store promotion management, out-of-shelf response) in a networked retail business environment. The services are characterized, on a high-level, by the information shared between retailers and suppliers, the level of tagging (pallet/case/item level) and the location of the tag readers. Also, a scalable-distributed network architecture, building on the possibilities provided by web service orchestration and data stream management systems, is proposed to support these collaborative supply chain management processes. However, this paper introduces into a research-in-progress with the ultimate purpose to assess and categorize the RFID-enabled supply chain collaboration services according to four dimensions: the extent of collaboration required between retailers and suppliers, the RFID technology requirements, the transformation of existing (or the introduction of new) processes and the business performance impact of the RFID-enabled collaborative service. This research is partly funded by the European Commission (IST-2005, FP6) through the IST SMART research project with participating user companies being European grocery retailers and suppliers from the fast-moving consumer goods sector.
2007	20th Bled eConference	Mobile RFID Management – An Application Scenario on the Handling of Industrial Liquid Containers	Goetz Botterweck, J. Felix Hampe, Sven Westenberg	This paper deals with concepts, challenges and design alternatives for the application of RFID technology within an industry context. We are especially interested in the combination of RFID technology with positioning information and mobile networks. To discuss these topics, we introduce an application scenario concerning the handling of industrial liquid containers along an integrated supply chain. First we describe the traditional approach and some of the problems involved with it. We then contrast this with an improved process using RFID technology. The scenario is augmented by a discussion of an appropriate application prototype. This paper thus contributes to the debate on RFID and highlights the challenges of integrating various mobile technologies in order to efficiently support supply chain processes.
2007	20th Bled eConference	Controlling your brand: Contractual restrictions placed by Internet retailers on affiliate marketing activities in Spain	Paul Fox, Jonathan Wareham	Affiliate marketing programs have emerged as one of the fastest-growing methods for online retailers to acquire customers and increase sales. Affiliate marketing offers a number of advantages, including a relatively low cost and the ability to accurately track the actions of website visitors and their responses to targeted promotional activities. However, while these programs have proven effective in increasing website traffic and sales, illegal or inappropriate activities on the part of affiliates could negatively impact a retailer's brand in the eyes of customers. This study reviews the stated guidelines in one-to-many affiliate programs in the three major affiliate networks in Spain as a first step in understanding how online retailers control the business models and promotional tools used by their affiliates. The conclusion is that there is a significant lack of transparency in the guidance and restrictions communicated to affiliates, which increases the risk of inappropriate behavior or misconduct. Consequently, affiliate monitoring by online retailers becomes increasingly important. General recommendations to improve monitoring are considered.
2007	20th Bled eConference	Using Electronic Auctions to Improve Market Performance in Health Care	Martin Smits, Richard Janssen, Paul van Pelt	Electronic auctions can be applied in certain health care markets, but the effects on market structure, market behavior and market performance are unclear. We analyzed the effects of a reverse electronic auction initiative that was implemented by a new intermediary (CareAuction.nl) in the market for maternity care in the Netherlands in 2005 and 2006. We found small but significant effects on the price of maternity care (minus 2-4%), and significant effects on market structure (more care providers involved in the bidding processes) and market behavior (bidding behaviors and user preferences). We see good opportunities to improve health care market effectiveness for specific care services (non-emergency, elective, standardized care) and to further adapt the auction mechanism.

2007	20th Bled eConference	Second Wave E-Ventures: Entrepreneurship in a New Context	Claudio Huyskens, Claudia Loebbecke	The second wave of e-ventures, i.e., newly founded companies offering community-driven services via the Internet, is characterized by user content contribution, network effects, and altering business models due to the dynamic environment. This paper investigates issues relevant in the early stages of second wave of e-ventures. The paper describes two case studies, one the video sharing community Clipfish, and one featuring the online student community Studyounge. It discusses the cases along several issues related to the second wave e-venture specific characteristics showing specific occurrences in the cases. The paper finds that for e-ventures - as for classic ventures - top management involvement, a solid business case, and the illustration of the business opportunity foster access to resources. It further discovers that a combination of viral, guerilla, and classical marketing instruments fits the context of e-ventures and accomplishes community growth.
2007	20th Bled eConference	Business Model Implications of a Cognitive Pilot Channel as enabler of Flexible Spectrum Management	Simon Delaere, Pieter Ballon	This article argues that both flexible spectrum management and the concept of reconfigurability do not eliminate the need for certain centralized controlling entities, and even introduce a number of new entities performing regulatory, commercial and technical functions. One such entity, the Cognitive Pilot Channel (CPC), is presented, and different configurations of the CPC are outlined. Subsequently, the potential impact of different CPC configurations on business models for wireless services making use of such a channel is explored. The article concludes that a hybrid model combining a meta-level CPC with operatordeployed channels might provide the best mix of technical and strategic control for operators, and value for users.
2007	20th Bled eConference	Implementing Information Management Strategically: an Australian EDRMS case study	Linda Wilkins, Duncan Holt, Paula M. C. Swatman, Elsie S. K. Chan	Organisations in both private and public sectors are increasingly becoming aware of the need to take a strategic approach to the management of corporate information and records. In this paper we present a case study of a successful Electronic Document and Records Management System (EDRMS) implementation within a major Australian capital city council. Guided by Ward and Peppard's strategic systems framework (2002), the case study highlights a set of strategies which were responsible for the successful outcome of the implementation – and shows just how crucial it is for any organisation to bring with it the people and the processes involved in the creation, management and maintenance of records and information, if a centralised approach is to work over the longer term.
2007	20th Bled eConference	The Digital Divide - Any Reasons for enthusiasm? The Case of Austria	Roman Brandtweiner, Elisabeth Donat	The paper presents a secondary analysis of the Austrian data of a Eurobarometer (conducted in all member states of the EU) data set and addresses questions of penetration and usage of new information and communication technologies. Before going into the empirical analysis we provide a brief theoretical analysis of the digital divide concept, based on a literature overview. Up to now, research on digital divide analyzed predictors of this phenomenon only separately without considering interaction effects. Our analysis aims to develop various types of Users and Non-Users by combining demographics and information about internet usage in a cluster analysis. Results give strong support to consider Users and Non- Users not as homogenous groups in future research. A more differentiated view has to be applied: combinations of attributes can yield in deprivation in a double or even tripe sense, so that some groups are harder to reach by ICT-policies than others.
2007	20th Bled eConference	Towards Standardizing Success: RFID in Fashion Retailing	Claudia Loebbecke, Claudio Huyskens	During the last decade, many companies considered to implement RFID technology in their supply chains. They had to choose from a variety of largely incompatible RFID systems and therefore demanded RFID standardization. Only common RFID systems along the supply chain were expected to deliver the substantial benefits. This paper describes the RFID pilot and roll-out by German fashion retailer Kaufhof and analyzes Kaufhof's role in the RFID standardmaking process. It finds that (1) arguments concerning the RFID standard-making process partially deviate from the common public goods argument in the literature, (2) early involvement in standard-making mitigates a company's risk of future property right allegations, and (3) a third-party mediated standard-making process, rather than a endorpromoted one, delivers feasible and compatible standards. The paper concludes with a summary and an outlook to future research.

2007	20th Bled eConference	Rightsizing of Incentives for collaborative e-Science Grid Applications with TES	Arun Anandasivam, Dirk Neumann, Christof Weinhardt	The particle physics community is sharing its resources over a Grid network. Currently resources are used on availability. But there is no fair allocation considering the importance or the private value of a job. Researchers are using Grid resources regardless of whether others need them more urgently. Furthermore, they do not even provide their own resources as they do not have an incentive for sharing them. Researchers are demanding a Grid infrastructure where an incentive mechanism is implemented. This will support a fair allocation of resources. Incentives can be provided by using money. But one constraint is that no real money should be involved for billing the resources in the science community. In this paper, a mechanism called Token Exchange System (TES) is proposed. Considering the requirements from the particle physics community this mechanism combines the advantages of reputation and payment mechanism in one coherent system to realize a fair allocation. It enables to build up a Grid infrastructure with an incentive mechanism which is scalable, incentivecompatible and does not require a face-to-face agreement like the current system.
2007	20th Bled eConference	The limits of an Ostrich policy for resolving dialectical conflicts	Eveline van Stijn, Niels Bjørn-Andersen	In this paper, we analyze the introduction of the Australian Integrated Cargo System (ICS) in order to improve our understanding of eCustoms innovations in Europe, primarily Single Window services. We combine the case study with a theorization based on socially constructed change in networks. The development and diffusion of eCustoms solutions takes place within an elaborate network of businesses, government agencies, and technology providers. We focus on the ongoing dialectics during change in such a network. This means we zoom in on the constant confrontations and conflicts of both interests and understandings of contents, processes, and outcomes of change. These conflicts potential shift change in unintended and unwanted directions, resulting in perceived failure. We critically reflect on the practical lessons that surfaced from the Australian ICS-Import case, where we observed a tendency to avoid facing conflicts, ignoring them, or dismissing them as not important. Our analysis demonstrates that using a dialectic approach can provide substantial insights in eCustoms innovation. We offer a characterization of conflicts and we contribute to the discussion of eCustoms in Europe.
2007	20th Bled eConference	Transformation of the software components and web services market	Willem-Jan van den Heuvel, Martin Smits	The Service Oriented Computing paradigm, with as its main manifestation web-service technology, holds high promises, but exploits its full potential only when third-party web-services are traded in a service market to enable effective development of net-enhanced organizations and business networks. After the introduction of software source code libraries and the rise of Software Component Markets (SCMs) since 1999, Web Service Markets (WSM) represent the third wave in the trade of reusable software components. However, very little is known about the current status, structure and trends within the WSM. We present a longitudinal study of the structure of the SCM in 1999, 2000, and 2006 and a study of the WSM in 2006. The SCM has grown into a large, polluted, and un-transparent market of around 30,000 software components, offered by 28 producers, 28 catalogues, and 8 intermediaries. Our study shows that the WSM is emerging and in the early stage of development in 2006. SCM and WSM still have a long way to become transparent and effective mechanisms for organizations to obtain powerful, re-usable, and interoperable components for business networking.
2007	20th Bled eConference	Cumulating Conditions. An empirical analysis of the EIS adoption by European firms	Ronald Batenburg	In this paper we aim to empirically test the relative influence of internal and external conditions for the adoption of Enterprise Information Systems (EIS). For this goal data are used from the EU-initiated E-Business W@tch survey 2002/2003 among more than 10,000 organizations from seven different European countries. It appears that organizational size, sector and country all have significant and cumulative effects on the EIS adoption by organizations. More specifically, national culture matters if we control for size and sector.
2007	20th Bled eConference	Addictive, dependent, compulsive? A study of mobile phone usage	Val Hooper, You Zhou	In order to address the claims that mobile phone usage is addictive, a study was undertaken to categorize mobile phone usage behaviour based on the underlying motivation. Six categories were identified: addictive, compulsive, dependent, habitual, voluntary and mandatory. A survey of 184 students found that the behaviour cannot be conclusively categorized as any specific type, although there was stronger support for mobile phone usage being categorized as dependent, voluntary or mandatory behaviour, rather than being addictive, compulsive or habitual.

2007	20th Bled eConference	Determining Improvement Directions for Transactional and Relational Components of Websites	Adriana Krawczyk, Eelko K.R. Huizingh, Tammo H.A. Bijmolt	In this paper we propose and test a model of the stages through which firm websites become more advanced. The advancement of a website is reflected in the goals firms pursue with it. Since websites are used by customers during their decision process, we derive the website goals from the customer service life cycle. The concept of website advancement stages assumes that the website goals form one or more goal hierarchies. A goal hierarchy implies that a firm that pursues simpler goals may or may not pursue more advanced goals, but that a firm that pursues advanced level goals also pursues the more basic goals. We present the results of an empirical study of 380 firms with a website, sampled from a wide range of industries. Using the generalized partial credit model, we find two separate hierarchies of website development, namely a transactional and a relational dimension, each having three stages. The findings of this study offer insights to managers for advancing their websites and building sites with improved customer oriented strategies.
2007	20th Bled eConference	Service-based Interoperability – Leveraging Web Services for Implementing Industry Standards	Christine Legner, Tobias Vogel	With deeper levels of external process integration and a growing number of electronic business relationships, enterprises strive for becoming more interoperable with their business partners. Although B2B standards are supposed to ensure scalable B2B integration and m:n connectivity, enterprises face the challenge of ambiguous interpretations of standards when it comes to their implementation. This paper develops a conceptual model for service-based B2B interoperability which leverages web service technologies for implementing industry standards. The authors instantiate the conceptual model in a concrete B2B scenario in the automotive industry where a consortium of automotive manufacturers and suppliers are currently redesigning their inter-organizational Engineering change Management (ECM) processes. From the evaluation, they conclude that it is not sufficient to specify that standards are used related to pragmatics, semantics and syntax. In order to ensure interoperability, additional design rules are needed which define how industry standards are mapped to a web service design.
2007	20th Bled eConference	Managing the Process of Multi Channel Alignment - The Case of a Large Multinational Corporation	Kai Wehmeyer, Alexander Kipp, Kai Riemer	Companies which operate multiple marketing channels face the challenge of properly aligning channel strategies and operations. The case of a large multinational corporation is used to describe the complex and situated nature of multi channel strategies. The case context is used to introduce a framework and a reference process for achieving channel alignment in strategic business units. We build upon the model of strategic channel alignment – a modification of the strategic alignment model – in the development of two instruments which are applied for information gathering and structuring during processes of channel alignment. Exemplary findings from the case are presented. This study concentrates on the development and shaping of a strategy process and supporting instruments which facilitate channel alignment but also reflects on strategic channel alignment as socially accomplished and situated activity. The instruments can be used to gather rich information in a structured way and to gain the required level of understanding necessary to facilitate communication and collaboration between managers to ultimately achieve alignment.
2007	20th Bled eConference	Competing successfully with a multi service online platform – a music industry case study	Niklas Eriksson	This paper presents a successful multi service online platform called Meteli.net within the music industry in Finland. The case platform is maintained by a network of actors either with a commercial or non commercial interest. Sources of value and revenue are identified for the case platform as well as challenges and prospects. The study gives practical insights into the business opportunities and challenges of online business and shows that music consumers are not necessarily interested in being paying customers of content but instead there is an interest to become contributors in a community or becoming so called prosumers (consumers acting as producers). A broad online partner network makes it possible for the Internet start up company to create a multi service platform instead of a stand alone music service and thereby compete successfully in the online marketplace.
2007	20th Bled eConference	Inter-Organisational Network Formation and Sense-Making: Initiation and Management of Public-Private Collaboration	Frank Fröbier, Boriana Rukanova, Allen Higgins, Stefan Klein, Yao-Hua Tan	The paper analyses the initiation and management of inter-organisational networks, spanning both the public and private domain. Specifically, bracketing the institutional level and combining literature on communities-of-practice and network management, we turn our attention to managerial activities which are no longer de-contextualized but understood as highly situated activities. By doing so, the paper elucidates the crucial role boundary spanners have in alleviating discontinuities across institutional boundaries. Furthermore, we untangle the temporal process which led to the successful formation of an innovative network, namely stabilising the network, initiating a cognitive shift towards a network strategy, and developing a supportive culture and practices. These ideas are developed by presenting a processual account of an interpretive case study on inter-organisational network formation which was part of a research programme for designing and studying the feasibility and implications of electronic government/industry interaction.

2007	20th Bled eConference	Customer Loyalty Programs and Privacy Concerns	Oliver Hinz, Eva Gerstmeier, Omid Tafreschi, Matthias Enzmann, Markus Schneider	In recent years, loyalty programs have been established allowing the creation of detailed consumer profiles by collecting and processing purchase information. Collecting this information, however, raises privacy concerns of customers. In this work, we provide the results of an empirical study which reveal that privacy concerns have an impact on the probability of participating in loyalty programs. We identify a privacy-sensitive segment of customers using demographic and psychographic data that, in principle, would participate in a loyalty program, however, refrains from doing so because of privacy concerns. Moreover, we found that people participating in customer loyalty programs are more concerned about their privacy than non-participants, which is an interesting though counterintuitive result.
2007	20th Bled eConference	Network strategy: a dynamic approach	Javier Busquets, Jonathan Wareham, Juan Rodon	Strategy discourse has focused primarily on the individual firm, evolving from an emphasis on industry positioning, to internal resource allocation, and finally, dynamic capabilities and learning. However the strategy discourse concerning networks remains focused on network structural attributes and static resource endowments. We argue that a theory of dynamic capabilities or adaptive behavior is lacking for business networks. We define business networks as organizations with one central player (or focal firm) and highly inter-dependent external players that collaborate in order to meet common objectives. Drawing on the literature of learning and psychology, we define four discrete modes of adaptability; 1) automatic responses, 2) assimilation, 3) accommodation, and 4) environmental enactment, describing how business networks display self-renewal behavior, learning and negotiation with the environment. A cross-case analysis of 2 distinct business networks is presented to substantiate how common patterns of business network adaptability can be applied with; a) either greater scope or breadth across industries, or b) focus and specialization in a single vertical niche. The paper concludes with implications for the theory and management of business networks, as well as limitations of our study and prospects for future research.
2007	20th Bled eConference	Motivations to produce User Generated Content: differences between webloggers and videobloggers	Ralph Stoeckl, Patrick Rohrmeier, Thomas Hess	This explorational study seeks to elucidate the question of what motivates weblogger and videoblogger to produce user generated content. Particular focus was laid on the question whether motivational differences can be discerned between webloggers and video producers and why people do not produce content. The findings show that it is the intrinsic motivations that are responsible for today's user generated content. Video producers and webloggers differ in their motivations. Video production is more associated with fun and time passing than is weblogging. Weblogging is regarded as being more useful in the dissemination of information. The main reasons for not producing content are opportunity costs and privacy issues.
2007	20th Bled eConference	Key Dimensions of E-commerce Service Quality and Its Relationships to Satisfaction and Loyalty	Samar I. Swaid, Rolf T. Wigand	Evidence exists that one successful strategy to satisfy and retain customers is offering superior service quality. Motivated by the growing interest in e-commerce, we focus our research questions on identifying the key dimensions of e-commerce service quality and its relationships to customer satisfaction and loyalty. In exploring answers to our research questions a hypothesized model is proposed and empirically tested using a research survey with 370 online shoppers. Salient results include: (1) key dimensions of ecommerce service quality are website usability, information quality, reliability, responsiveness, assurance and personalization; (2) customer satisfaction is influenced mostly with the perception of reliability, while customer loyalty is affected by the perception of assurance; (3) customer retention is predicted by the customer satisfaction index. Results of the study contribute to the nascent body of research in e-service quality and offer unique insights for managers of online firms on how to manage the quality of their e-commerce e-service.
2007	20th Bled eConference	Business model dynamics: a longitudinal, crossectional case survey	Mark de Reuver, Timber Haaker, Harry Bouwman	To maintain alignment with technology, regulation and market developments in the outside world, companies need to adapt their business models over time. As most literature has studied business models in a static approach, understanding is lacking on how external forces drive internal business model design choices. This paper studies which type of external drivers are most influential throughout the life cycle of business models. To do so, we surveyed 45 longitudinal case descriptions on business model dynamics of (networks of) organizations in various domains. Our results partly support our hypotheses. Market and technology drivers are most relevant in early stages of new business models, while regulation is far less important than we expected. These results mainly apply to small start-ups rather than large, established companies.

2007	20th Bled eConference	Gap analysis methodology for identifying future ICT related eGovernment research topics – case of “ontology and semantic web” in the context of eGovernment	Andreja Pucihar, Kristina Bogataj, Maria Wimmer	Modern ICT enables governments all over the world to improve their operation in order to become more efficient and effective. Despite of all possible benefits of using modern ICT, governments still struggle with the problems of inefficiency of their operation. eGovernment is being discussed in many contexts. Expectations of research and implementation in this field were high. However, many investments have not met the visions and reached the maturity aimed at. What are the deficiencies of current developments in eGovernment? What is the role of research in advancing the field? In an European Commission - funded project, eGovRTD2020, eGovernment research is being investigated in terms of current state of play and future needs of eGovernment research based on visionary scenarios of governments using modern ICT in 2020 for their service provision and interaction with their constituency (citizens, companies, other governments, etc.). To understand the future needs of eGovernment research, a structured methodology of analyzing the gaps of current research in respect to the future needs has been developed. This paper presents the gap analysis methodology with the example of identified gap and future research theme “semantic web and ontology in the context of eGovernment”.
2007	20th Bled eConference	Dynamic Product Interfaces: A Key Element for Ambient Shopping Environments	Wolfgang Maass, Sabine Janzen	By embedding information technologies into tangible products a new class of products is created that we call smart products. Smart products use product information in product-centered communication with users. Communication of smart products is handled by dynamic product interfaces. We present a model for QA-based dynamic product interfaces and its implementation DyPI. It is based on a schema-driven question-and-answer approach for Natural Language understanding and generation. Product information is described by web-based semantic representation formats that are stored in distributed repositories. Communication between smart products and users are run on a dedicated middleware (Tip 'n Tell) that supports user interactions with products by wireless, RFID-based infrastructures and manages requests on product information.
2007	20th Bled eConference	Preparing SME Suppliers for Sustainable Local Authority eProcurement	Paul Beynon-Davies, Martin Parfett, Ceri Evans, Stephen Whittle	Public sector organisations are increasingly introducing eProcurement systems in order to improve the efficiency and effectiveness of their procurement processes. This clearly has implications for their suppliers, who are being asked to adopt eProcurement. For many SMEs, particularly small and micro businesses, this is proving a difficult challenge given their lack of eProcurement knowledge, as well as their resource shortages. It is at the Local Authority (LA) level that this situation is most problematic, as SMEs tend to supply more to local than central government. This paper presents the results of research undertaken with LAs and SMEs as part of the EPROC project. In particular, it provides insights into the level of eProcurement use and development in LAs in North West Europe, and illustrates how the introduction of eProcurement could have a negative impact on local economies and communities if LAs don't help their SMEs to adopt eProcurement. The paper also reports on the findings of research conducted with SMEs in relation to the problems they've experienced in undertaking eProcurement with LAs, and details how some LAs are engaging with their local SMEs to help them become 'eProcurement ready'. The research has demonstrated there is a need to bridge the knowledge gap between SME understanding and awareness of LA eProcurement developments on the one hand, and on the other, LA understanding of the typical eProcurement capabilities of their SME supplier base. To meet these needs, the EPROC project has developed separate eProcurement guides for SMEs and LAs.
2007	20th Bled eConference	SMEs in Developing Countries Need Support to Address the Challenges of Adopting e-commerce Technologies	Mahesha Kapurubandara, Robyn Lawson	Although research indicates e-commerce offers viable and practical solutions for organizations to meet challenges of a predominantly changing environment, the few available studies related to SMEs in developing countries reveal a delay or failure of SMEs in adopting ICT and e-commerce technologies. The various factors identified as causes for the reticence can be broadly classified as Internal Barriers and External Barriers. This paper presents a model for barriers to adoption of ICT and e-commerce based on the results of an exploratory pilot study and survey. It identifies support for SMEs in Sri Lanka at different distinct levels of sophistication in SMEs with regard to ICT and e-commerce. It also determines a strong need for necessary support and discusses the availability of the support. Finally it proposes an initial framework to eTransform SMEs.

2007	20th Bled eConference	Outsourcing of ICT: An Empirical Study in Swiss SMEs	Petra Schubert, Uwe Leimstoll	Results from a longitudinal study on the importance and use of information and communication technology in Swiss small and medium-sized companies provide the basis of this paper. In an empirical survey, 901 questionnaires were collected and analysed. The results were weighted according to company size and industry sector and are representative for Switzerland. The data was used to run an extensive cluster analysis. Based on the identified clusters, several bivariat analyses were performed in order to identify the typical outsourcing behaviour of the clusters. The clusters were tested against four different statements regarding (1) experiences with outsourcing, (2) degree of outsourcing (buy or rent), (3) IT knowhow, and (4) influencers for outsourcing. The results have a high statistical validity and allowed us to draw conclusions about the typical behaviour of cluster members.
2007	20th Bled eConference	Bridging the Grid Adoption Gap – Developing a Roadmap for Trading Grids	Dirk Neumann, Jochen Stoesser, Christof Weinhardt	This paper argues that the technology of Grid computing has not yet been adopted by enterprises due to the lack of viable business models. While in academia, Grid technology has already been taken up, the sharing approach among non for-profit organizations is not suitable for enterprises. In this paper, the idea of a Grid market is taken up to overcome this Grid adoption gap. Although this idea is not new, all previous proposals have been made either by computer scientists being unaware of economic market mechanisms or by economists being unaware of the technical requirements and possibilities. This paper is unique as it derives an economically sound set of market mechanisms based on a solid understanding of the technical possibilities.
2007	20th Bled eConference	Mobile Web 2.0	Robert Martignoni, Katarina Stanoevska-Slabeva	After years of stagnation in the Internet following the burst of the New Economy, a new phenomenon ignites the fantasies of the Internet community. Web 2.0 seems to redefine the economical foundations of the Internet economy. Services such as MySpace, YouTube and Second Life have demonstrated the power of the alleged new online community services. User-generated content and social networks are the artefacts of the new movement. The mobile service industry has picked up the trend, and developed cutting-edge mobile services based on usergenerated content. In the paper the emerging mobile extensions of existing online Web 2.0 applications and pure mobile Web 2.0 services are analysed and compared and the potentials for a profitable positioning of mobile operators in the value chain are extracted.
2007	20th Bled eConference	The design and evaluation of a clinical process mapping methodology (CPMM) to support information systems (is) innovation in a healthcare context	Jan vom Brocke, Christian Buddendick, Séamas Kelly, Peadar Ó Scolaí	This paper discusses the development, and assesses the appropriateness, of a Clinical Process Mapping Methodology (CPMM) to support information systems (ISs) innovation in acute hospitals. It is based on an ongoing longitudinal study in acute academic teaching hospitals in Ireland. The key rationale underpinning the research was that any attempt to develop ISs to support or change clinical work, must be based on a sophisticated, holistic and granular understanding of existing practices. Drawing on the insights gleaned through this observational study, an initial CPMM was developed by adapting elements from existing modelling languages to fit the clinical context in question. Our observations highlight the complex, collaborative and contingent nature of clinical practice, and the important mediating role played by technical and non-technical artefacts. This complexity would caution against viewing modelling as a panacea, which can be used to map the world in an objective or unproblematic manner. While modelling can be very helpful for facilitating new perspectives on work, and for facilitating productive collective sensemaking processes, it should be borne in mind that all models are purposeful, and necessarily partial, representations of the 'real' world. This underlines the importance of using any modelling approach in a discriminating and reflective way.
2007	20th Bled eConference	Business Modelling as the Configuration of Control and Value	Pieter Ballon	This paper provides a theoretically grounded framework for designing and analysing business models for ICT services, products and systems. It critically revisits the most topical literature on business modelling, as well as general strategic management, industrial organisation and network economics literature. Business model design is interpreted as the (re)configuration of control parameters on the one hand, and value parameters on the other hand, within a particular innovation system.
2007	20th Bled eConference	Design and Analysis of e-Government Control: the Green Corridor between Finland and Russia	Jianwei Liu, Ziv Baida, Yao-Hua Tan and Kari Korpela	Confronted with the pressure of increased security threats and financial fraud, Customs administrations worldwide changed regulations and added restrictions to international trade in recent years. At the same time, governments also want to reduce the administrative burden for businesses in order to create an economically competitive zone. The EU is now implementing e-government ideas in new procedures. An important issue in designing new customs and trade procedures is whether the new procedures mitigate control risks. In this paper we present a model-based approach to support domain experts in investigating whether (redesigned) customs procedures mitigate control risks. We describe a methodological application of our “AAD”, or Actor-Activity-Document approach of control principles from accounting and auditing literature, to analyze trade procedures. As a proof of concept, we apply our “AAD” approach to the case of the Green Corridor between Finland and Russia.



2007	20th Bled eConference	Empirical Findings on the Mobile Internet and E-Commerce	Hannu Verkasalo	This paper discusses the evolution of mobile services and associated potential for mobile e-commerce. In particular, the current operator-driven business ecosystems are contrasted to the potential mobile Internet revolution. Critical factors and characteristics of cellular and Internet business ecosystems are identified. Potential for radical changes in mobile services business exists if inducing trends drive the disruptive potential of mobile Internet services. The paper identifies several measures that can be used when projecting to which extent the mobile Internet has emerged. These measures are used in a case example comparing Finnish early-adopter smartphone users between 2005 and 2006. The results indicate that the mobile Internet has not really kicked off in large scale in Finland yet. On the contrary operators have slightly increased their power because handset bundling with mobile subscriptions is now allowed in Finland. The measurement framework can be further utilized both in cross-sectional and longitudinal study settings in evaluating the emergence of the mobile Internet. Accurate studies on mobile e-commerce can also be done. The emergence of the mobile Internet provides a lot of potential for mobile e-commerce to fly.
2007	20th Bled eConference	The eMerging Dependence of SMEs and Citizens on Broadband	James B Waddell, Geraint R Rowland, Paul Beynon-Davies	In October 2006, the Broadband Wales Observatory undertook case study research into the change, impact and benefits of broadband, on a diverse selection of SMEs (including micro and SOHO businesses) and citizens from across Wales, UK. This paper explains the research approach and method, and presents an overview of the findings from 24 case study reports. It concludes that all of the cases have embraced ADSL broadband, increasing their use and dependency on Internet communication methods, and that many have also re-engineered their business processes to achieve improved operational efficiencies and productivity gains.
2007	20th Bled eConference	Organising for Business Intelligence: A framework for aligning the use and development of information	Joep Dekkers, Johan Versendaal, Ronald Batenburg	Organisations invest in Business Intelligence systems to improve their performance, provide management information and support decision-making. In practice however, Business Intelligence can be ineffective. While Business Intelligence software enables company-wide reporting, problems are encountered in the fit between systems' provision and changing requirements of a growing amount of users. To contribute to the solution of these problems, a framework is defined to align the use and development of information for Business Intelligence. This framework has been validated using four explorative case studies of larger organisations.
2007	20th Bled eConference	Internet Technology in Omani Banks – a Case of Adoption at a Slower Rate	Salim Al-Hajri, Arthur Tatnall	Banks in most developed countries have now embraced Internet technology, at first perhaps reluctantly, in a big way. This, however, is not always the case in developing countries. Omani banks, for example, continue to conduct most of their banking transactions using traditional methods. A strong banking industry is important in every country and can have a significant affect on the support of economic development through provision of efficient financial services. This paper will address the question of why the Omani banking industry has lagged behind many other countries. In Oman the role of the banking industry needs to change, both at the procedural level and at the informational level. In the paper we will detail a study that explored the enablers and the inhibitors of Internet technology adoption in Oman compared with those in the Australian banking industry.
2007	20th Bled eConference	Challenges of eCollaboration among SMEs	Robyn Lawson, Ana Hol, Tim Hall	The challenges of eCollaboration for SMEs start with the decision to collaborate, and continues with the incorporation of enabling web technologies. This paper focuses on factors that influence eCollaboration by studying two collaborative groups, one in the toolmaking industry and one in the IT industry. Results indicate the need for an additional factor of independent facilitation and coordination, as well as a higher level of priority to be given to the time taken to build trust. Also, a team workspace to manage the process, alongside a web portal to manage the collaborative projects is recommended. The notion of SMEs collaborating with each other when previously they may have been competitors indicates a change in the way business is perceived.
2007	20th Bled eConference	mobile Game-Based Learning – issues emerging from preliminary research and implications for game design	Alice Mitchell, Dragan Ciscic, Emanuel Maxl	Mobile technologies are increasingly the technologies of choice for social and leisure activities, particularly among young people. Mobile games are among the most popular applications and we are beginning to see how these may be translated into effective learning technologies. The 3-year mobile Game-based Learning project (mGBL) is a practical response to the emerging opportunities, designing new learning game models for delivery via mobile devices. These are to further the development of skills and strategies for dealing with crisis situations, a priority concern of the European Commission, which supports the project. Our vision is for great games that are user-led, not technology-led, informed by theory and competence-based, for use in blended learning programmes. Can all this work, or are the aims too disparate? Now mid-way through the project we take stock, engaging with findings from the first round of field research and from the first User Trials.

2007	20th Bled eConference	E-Inclusion through text messaging: The emergence of an administrative ecology within an university student population via the use of a mobile academic information delivery system	Joan Richardson, John Lenarcic	The investigation evaluated the impact of incorporating mobile technology and in particular the introduction of on-demand Short Messaging Service (SMS) – also known as text messaging - into the information exchange between universities and the students. The impact of the technology on the creation of a new mode of information exchange that augments the existing student learning experience was assessed. The pilot of the application used SMS mobile technology to improve student 'on-demand' access to information relating to their subject schedules and assessment performance and institutional provision of information to students. This innovative use of the emerging technology enabled 'push-pull' communication with the student body and provided a means of keeping pace with the marketplace and stakeholder demands in terms of communication mode.
2007	20th Bled eConference	Business Value of IT Investment: The Case of a Low Cost Airline's Website	Márta Aranyossy	Using the case of a low cost airline company's website we analyze some special research questions of information technology valuation. The distinctive characteristics of this research are the ex post valuation perspective; the parallel and comparative use of accounting and business valuation approaches; and the integrated application of discounted cash flow and real option valuation. As the examined international company is a strategic user of e-technology and wants to manage and account intangible IT-assets explicitly, these specific valuation perspectives are gaining practical significance.
2007	20th Bled eConference	A Pay-as-Bid Mechanism for Pricing Utility Computing	Philipp Bodenbenner, Jochen Stößer, Dirk Neumann	Encountering the increasing demand for high-performance computational resources in academic as well as commercial organisations, utility computing offers a solution by providing users with on-demand availability of requested computing services. Approaches to the fundamental issue of resource allocation include the use of technical scheduling mechanisms as well as introducing economic ideas into the allocation schemes. Technical scheduling mechanisms are often very simple (such as first-in-first-out) but suffer under the shortcoming to adequately prioritize jobs in times when demand exceeds supply. As empirical studies show, Grids (such as PlanetLab) are frequently characterized by huge excess demand for resources. This is where economic models such as markets come into play. Hitherto, market mechanisms are either (too) simple or too complex for usage in Grids. The contribution of this paper is threefold. Firstly, a mechanism for Grids is proposed, which is still simple but geared up for use in the Grid. Secondly the mechanism is embedded in state-of-the-art Grid middleware Sun N1 Grid Engine 6. Thirdly, it is shown by means of a numerical case study that this mechanism is superior to other commonly used mechanisms.
2007	20th Bled eConference	Doing it Tough: Factors impacting on local e-Government maturity	Peter Shackleton, Linda Dawson	As growing numbers of citizens seek to use the Internet to do business, governments across the world have moved into the area of electronic service delivery. For the last decade significant advancements have been made in the area of e-Government. Today, e-Government is often assumed to be well-established. However, ongoing support is often missing, particularly at the local government level. The multi-level nature of government often means that citizens are frustrated when accessing services that span many levels of bureaucracy. This paper describes an empirical study which explores the factors influencing local e-government maturity and identifies the barriers, enablers, priorities and objectives that impact on local e-government maturity in Australia. It concludes by presenting a model that describes both the internal and external factors that impact on local government maturity.
2007	20th Bled eConference	Current Trends and Challenges in Electronic Procurement: An Empirical Study	Christian Tanner, Ralf Wölflé, Petra Schubert, Michael Quade	The following paper presents results from a longitudinal study on the use of ICT for B2B-related business processes in large Swiss companies. In an empirical survey, 68 questionnaires were personally collected from procurement heads and subsequently analysed. The findings show that reduction of purchase prices is the top priority when goal-setting in procurement. Electronic orders and invoices are the business documents that are most often exchanged electronically between partners. Electronic exchange of invoices (e-invoicing) is a current key topic for over 70 % of the companies. Procurement heads sense a lack of supplier involvement which makes the realisation of balanced B2B solution scenarios difficult. The study shows that IT, without doubt, plays a significant role in everyday procurement, but that the expectations of IT are rarely completely fulfilled.

2007	20th Bled eConference	Rethinking EU Trade Procedures – The Beer Living Lab	Ziv Baida, Boriana Rukanova, Jianwei Liu , Yao-Hua Tan	The EU is currently reshaping its customs legislation and practices. Main pillars in the new vision are an intensive use of IT (Customs becomes e-Customs), partnerships between Customs administrations and businesses, and collaboration between national Customs administrations. These concepts should support coping with the dilemma of on the one hand increasing security, safety, financial and health requirements, and on the other hand the need to reduce administrative burden, to keep the EU a competitive economic zone. Two main concepts in coping with this challenge are Single Window and Authorized Economic Operators. The EU is investigating how to transform these abstract concepts into a tangible reality. The Beer Living Lab is an EU-funded pilot research project that implements this EU vision in the beer industry. In this paper we provide results from the Beer Living Lab and we introduce the fourth step in e3-control, a theoretical framework for procedure redesign. We discuss the application of e3- control in the Beer Living Lab, where modeling is a means to facilitate innovation and network transformation.
2007	20th Bled eConference	Mobile ad intrusiveness – The effects of message type and situation	Kai Wehmeyer	This study addresses the effects of message type and situation on the perceived intrusiveness of mobile advertisements. Ad intrusiveness, as conceptualized by Li et al., is introduced to the field of mobile advertising and used as dependent variable in a 2x2 within-subjects factorial study design. Two message types (informative vs. entertaining) are combined with two different situations (low vs. high level of activity). Attitude towards advertising in general and ad relevance (here: product class involvement) are further variables assessed in order to test for a hypothesized impact on mobile ad intrusiveness. A survey approach was used for data collection (n=325). Main effects were analyzed with analysis of variance. Analysis of covariance and regression analysis were applied subsequently for analyzing further effects. While message type was not found to contribute significantly to the explanation of mobile ad intrusiveness, the situation type showed a highly significant effect. Three of the four assumed relationships were found in the data. The study contributes to the body of knowledge on mobile advertising effectiveness. Empirical evidence for the effects of the situational context on mobile advertising effectiveness has been found and discussed with possible implications for marketing practice.
2007	20th Bled eConference	Emerging Mobile Government Services: Strategies for Success	Tarek El-Kiki, Elaine Lawrence	Effective management is considered a crucial factor for determining the success or failure of any mService project. This paper is a further step into a research project that aims to measure the effectiveness of mGovernment services. As a preparatory step to developing a users' opinion survey, the authors analyse suggestions to overcome barriers to the success of mGovernment service projects from the perspective of mobile government and mobile technology experts from nineteen countries around the world. Despite the fact that these experts identified four types of barriers in their answers to the survey, they only provided suggestions for overcoming three. These suggestions are compared to the findings from an extensive literature review, resulting in a very close correspondence between, and addition to, the literature review and providing a sound path to the development of a real-world end-users' survey.
2007	20th Bled eConference	Challenges of Global Trade and the transfer to e-enabled Business models in the Swiss Socks Market	Roman Boutellier, Barbara Flügge, Marta Raus	Recent research has acknowledged the need to shift from the traditional one to one e-enabled business model to a many-to-many one. With the introduction of the Internet in the 1990's companies such as Blacksocks SA and Jacob Rohner AG suddenly found a mean and the environment to think about e-enabling their business models or even start a company purely based on that existence. Building on a wide range of analysis of the terms business models and e-business models, e-business models to our understanding depict a company's capability to apply, use or even exist throughout the presence of an e-enabled environment. The internet itself is being seen as a family of tools, methodologies and concepts to represent the e-enabled environment. Currie and others are drawing the attention to value creation from e-business models and Joyce and Winch discuss the evolvement of a business model to become e-enabled (Currie, 2004). In contrast to their key findings, the EU research project ITAIDE and the underlying business cases in this paper go beyond. The argumentation and the conclusion we will infer in the paper show that e-enabled business models are much more than applying tools, methodologies through the simple existence of the Internet. Further than the reach of companies, collaborative and decent research environments such as ITAIDE allow companies and ecosystems to adopt from the research findings and transfer those into applicable and scalable e-business models.

2007	20th Bled eConference	Enabling Attribute-based Access Control in Authentication and Authorisation Infrastructures	Christian Schläger, Torsten Priebe, Manuel Liewald, Günther Pernul	Attribute-based access control (ABAC) is a very powerful and flexible security technique making it possible to overcome limitations of traditional role-based and discretionary access controls. ABAC enables the dynamic handling of vast numbers of heterogeneous and changing resources and users, a task especially relevant for E-Commerce or distributed computing. With an authentication and authorisation infrastructure (AAI) in place, service providers could benefit from synergies and outsourcing possibilities and, simultaneously, strengthening their security level. In addition, AAI could arbitrate between users' privacy issues and vendors' information demands, using privacy enhancing technologies. However, implementing ABAC is not trivial; nor is the derivation of attributes or metadata. This work proposes a solution to the demands for privacy aware, usable, secure, and outsourceable E-Commerce infrastructures with an AAI / ABAC combination. We introduce relevant technologies and an implementation that is evaluated. The prototype is based on the Liberty Alliance's ID-FF system, using XACML elements and classification tools.
2007	20th Bled eConference	Business Culture and the Death of a Portal	Arthur Tatnall	After receiving a Government grant under an 'e-commerce early movers' scheme, the Western Region Economic Development Organisation in Melbourne conceived and developed a business-to-business portal for use by small to medium enterprises (SME) in the region. This innovative project was to create a horizontal portal – Bizewest, which would enable the whole range of SMEs in Melbourne's west to engage in e-commerce transactions with each other. E-commerce portals come in all shapes and sizes, but they all have one thing in common: they all involve interactions between information technology and people. Information systems are complex socio-technical entities and research into their implementation needs to take account of this. The research reported here was socio-technical in nature and was based on considering this innovation through the lens of innovation translation, informed by actor-network theory (ANT). No matter how good the portal software, the final success or failure of the portal is primarily related to how well it is adopted and used. This paper outlines the development of the Bizewest Portal and the difficulty its proponents had in persuading regional SMEs to change their business culture to make best use of on-line trading with each other. This difficulty in changing business culture led to Bizewest's ultimate demise.
2007	20th Bled eConference	A Model of IT-Enabled Organizational Integration and Sustained Competitive Advantage	Lih-Bin Oh, Yi-Xing Leong, Hock-Hai Teo	Organizational integration is a phenomenon occurring inexorably in recent years due to rapid advances in IT and intense competition. Past research has found organizational integration, between and within firms, to be positively-related to performance, with IT resources playing a pivotal role in facilitating this trend. In this paper, we argue that IT resources, comprising of IT assets and capabilities, are critical antecedents to organizational integration. We examine the role of service-oriented architecture (SOA) as an IT asset in enabling the integration of organizational resources. As an IT-dependent strategic initiative, IT-enabled organizational integration provides significant barriers to competition and gives rise to sustained competitive advantage. Drawing upon the resource-based theory, we develop a model by conceptualizing both IT assets and IT capabilities as higher-order constructs comprising of IT infrastructure and IT architecture, and IT technical skills and managerial skills respectively. Next, we explore the mediating effects of causal ambiguity to further elucidate the relationship between organizational integration and sustained competitive advantage. Our proposed model provides managers with invaluable insights regarding the nature and application of IT to achieve organizational integration and to sustain their competitive edge in the global marketplace.
2008	21st Bled eConference	Optimising User Acceptance of Mandated Mobile Health Systems (MHS): The ePOC (Electronic Point-of-Care) Project Experience	Lois Burgess, Joan Cooper, Jason Sargent	From a clinical perspective, the use of mobile technologies such as Personal Digital Assistants (PDAs) within hospital environments is not new. A paradigm shift however, is underway towards the acceptance and utility of such systems within community-based healthcare environments. Notwithstanding, introducing new technologies and associated work practices has intrinsic risks which must be addressed. In situations where end-users of a system are traditionally averse to technology through entrenched paper-based work practices (for example, community health workers), the process of managing change bears considerable determination in system implementation success. The authors propose a novel approach to end user acceptance within the context of a mandated mobile health system in a community health setting. The ePOC (electronic point-of-care) project is used to demonstrate how higher levels of user acceptance are achievable in these implementation environments where traditionally low levels of technology acceptance and use are common.

2008	21st Bled eConference	Mobile technology in the Finnish construction industry – present problems and future challenges	Sonja Leskinen	This paper studies the added values, both qualitative and quantitative that can be gained by using mobile devices at a construction industry. Some pilots have already been made in the Finnish construction industry that involves the usage of mobile devices. The problem is still to locate the “bottlenecks” that the construction industry has and find a suitable mobile solution that could help in the problem. Here we will report the findings from an interview study done with different companies, involved in either information technology or in construction industry. The main objects of the interviews were to find out the users’ and service providers’ view of the problems, expectations and future hopes.
2008	21st Bled eConference	Mobile Decision Support vs. Interpersonal Sales Communication: Predictors of Buying Intentions for Price Bundles	Wolfgang Maass, Tobias Kowatsch	Mobile recommendation agents (MRA) are a new class of decision support systems that provide consumers with product information during purchase situations in stores. They allow merging of local information with global information provided by online content sources. Currently design criteria for MRA are missing. Studies on purchase decision support systems indicate the importance of price, single product quality, and attitude on buying intentions. It is assumed that purchase decision tasks on price bundles increase utility effects of MRA. We present an empirical study that investigates the impact of cues on price, bundle quality, and discount provided by MRA on consumer’s buying intentions in comparison with interpersonal sales communication between consumer and sales personnel. Our results show that MRA can be used to inform consumers about bundle qualities under best-value strategy conditions, which will be used for future MRA designs.
2008	21st Bled eConference	Designing the Tourist Agency of the Future	Gerhard Schwabe, Jasminko Novak, Mattias Aggeler	The Internet has challenged the traditional business model of travel agencies: What is the reason for their existence if information is abundantly available and transactions can be flexibly booked on the Internet? This paper argues that good travel advisory services create a significant added value, if they succeed in uncovering the customers’ hidden needs and creating a better user experience. Modern information systems such as the SmartTravel system developed by the authors support this effort and provide the customers with an involving “shopping” experience. SmartTravel supports the agent-customer interaction with a large display and an interface integrating professional and user-generated content. We present the design rationale and the interface design of the SmartTravel system. First evaluation results indicate that the users value the system, because it provides richer and more trustworthy information in a more enjoyable environment.
2008	21st Bled eConference	Consumer Value of Context Aware and Location Based Mobile Services	Henny de Vos, Timber Haaker, Marije Teerling	Context aware services have the ability to utilize information about the user’s context to adapt services to the user’s current situation and needs. In this paper we consider users’ perceptions of the added value of location awareness and presence information in mobile services. We use an experimental design, where stimuli comprising specific bundles of mobile services were presented to groups of respondents. The stimuli showed increasing, manipulated, levels of context awareness, including location of the user and location and availability of buddies as distinct levels. Our results indicate that simply adding context aware features to mobile services does not necessarily provide added value to users, rather the contrary. The potential added value of insight in buddies’ location and availability is offset by people’s reluctance to share location information with others. Although the average perceived value overall is rather low there exists a substantial minority that does appreciate the added context aware features. High scores on constructs like product involvement, social influence and self-expressiveness characterize this group. The results also show that context aware service bundles with utilitarian elements have a higher perceived value than bundles with hedonic elements. On the basis of the different results some guidelines for designing context aware mobile services are formulated.
2008	21st Bled eConference	A Risk Assessment Framework for Mobile Payments	Roger Clarke	Progress in Mobile Commerce is heavily dependent upon effective and reliable payment mechanisms. Security concerns loom as a major impediment to widespread and rapid adoption, and there is accordingly an urgent need for a framework within which security issues in mobile commerce can be evaluated. This paper draws on lessons from prior payment mechanisms in order to present such a framework. It provides insights into the use of the framework by performing a test application. Implications for policy, practice and research are drawn.

2008	21st Bled eConference	Mobile Applications for Police Officers	Harry Bouwman, Timber Haaker, Henny de Vos	This paper focuses on the design parameters on the part of the stakeholders and users in the design of mobile applications for police officers. Starting from an analysis of the functional requirements of stakeholders and relevant context parameters for police officers, we find design issues that are relevant to the development of context-aware mobile applications for police officers. We collected data from the stakeholders within the police administration as well from the intended users of the service, the police officers, who were asked which specific characteristics and functions mobile applications should be supported in the actual use of mobile applications in specific situations. We found that, whereas most stakeholders are clear and almost unanimous in terms of the functionalities they require, the results for the police officers are more mixed. The use of mobile devices is highly dependent on the context in which police officers have to operate.
2008	21st Bled eConference	The MobiCert Mobile Information Community for Organic Primary Producers: a South Australian Prototype	Nhiem Lu, Paula Swatman	Mobile technology and m-Commerce are transforming our digital economy to a mobile one, with new markets and mobile services worldwide. Today, the importance of communication and information access in a timely and efficient manner is critical for many industries: particularly those in rural and regional areas, due to their often limited Internet access and mobile coverage. This paper presents the findings of the MobiCert project, which investigated the use of mobile technology to improve communication and information access within one of these rural industries using a Rapid Appraisal approach. As a proof-of-concept project, MobiCert focused the development of a mobile information community for organic primary producers in rural South Australia to improve their stakes in the Mobile Revolution. The extremely positive acceptance of the MobiCert solution by organic primary producers illustrated the significant potential mobile technology has to improve rural farm life in Australia.
2008	21st Bled eConference	Capturing Value from Mobile Business Models: Design Issues That Matter	Mark de Reuver, Harry Bouwman, Timber Haaker	Designing viable mobile business models that capture value for all organizations involved is challenging. A range of design issues could be considered, and it is often not clear how they ultimately impact the performance of the business model. This paper tests causal relations between design issues and success factors in the organization and finance domain of mobile business models, by analyzing a survey among 120 practitioners and experts in the mobile Internet services domain using structural equation modeling. We find that organizational design issues lead to more acceptable division of roles among actors, and that financial design issues impact more acceptable risks. However, profitability is influenced only indirectly by these design issues, as the relations are mediated through acceptable risks and role division. Our findings imply specific clues to organizations in the mobile domain on what design issues to address in order to satisfy specific success factors.
2008	21st Bled eConference	How SMEs Strive to Achieve Competitive Advantage with IT-Supported Business Processes: An Empirical Study	Petra Schubert, Uwe Leimstoll	Results from a longitudinal empirical study on the use of information technology (IT) in Swiss small and medium-sized enterprises (SMEs) form the basis of this paper. In the recent survey, 917 questionnaires were collected and analysed. Selected findings are presented in ten conclusions which were drawn from the analysis of the responses. We see that the degree of information integration is very high in Swiss SMEs. Surprisingly, secondary process areas are better integrated across the company than primary process areas. The electronic exchange of data is quite common in SMEs and is performed, in many cases, at an international level. Swiss SMEs see the customer-oriented processes as important for their future competitiveness. On the other hand, they lay great importance on a well-working accounting process and the effective access to a management information system. Most SMEs embrace IT as a way to improve their business. Many of them are open for new technological developments and intend to further improve the interplay between software and processes. There is a strong association between the level of data integration in customer-related process areas and innovation. The integration level in supplier-related processes, on the other hand, has a weak influence on the innovativeness of a company.

2008	21st Bled eConference	Competitiveness of Manufacturing SMEs and eCommerce Strategies: An Exploratory Empirical Research in Mexico	Celestino Robles-Estrada, Citlali Navarrete-Cova, Juan Antonio Vargas-Barraza	Faced with the rapid development of electronic commerce in Mexico and in many parts of the world, it becomes increasingly necessary to rely on theoretical-empirical studies that include both qualitative and quantitative analysis, to help us understand the many faces of electronic trading activity. As SME's are playing a very important role in the world economy, this research is aimed to analyze the relationship between the TOE model by Tornatzky & Fleisher (1990), and the competitiveness of manufacturing SME's Electronic Commerce (EC) strategy. This research is divided into three parts: The first part reviews the Resource Based View (RBV); the TOE model for innovations' adoption; and how concepts on competitiveness create a framework to support analysis on EC strategies' competitiveness - and discusses the link between them. The second parte discusses the results of an exploratory empirical study aimed to identify key factors and variables involved in the success of the SME's EC strategies. A Probit model was used to evaluate the relationship between the TOE factors and the ability of the company to develop effective EC strategies, preceded by a confirmatory factor analysis to specify the most important variables embedded in these three factors.
2008	21st Bled eConference	Value Creation in B2B E-Markets of China: A Practical Perspective	Jing Zhao, Shan Wang, Wilfred V Huang	In China, the development of e-market has unique characteristics in the transactional processes and market mechanisms, which relate largely to the current industry structure, financial infrastructure and organization structure. This paper seeks to develop a conceptual model of B2B e-market value creation strategy, and can also be used to highlight the complexity of such activities for Chinese B2B e-markets. A process-oriented approach to modelling the value of e-market, rather than strategic position theory or a simple descriptive approach, is found to be more suitable and has been selected. The model consists of two dimensions: the e-commerce process and the controlling complexity. We apply the model in an actual Chinese B2B e-market (Alibaba.com). The crucial value creation activities and strategies in the four phases of e-commerce process are identified, and the controlling complexity of these activities is evaluated in the model. The model offers an effective approach to study the dynamic structure of transactional processes and bring into light the special issues of e-market development in China. Managers can resort to the model to offer more value to their customers by designing an effective e-market process.
2008	21st Bled eConference	Using the eSana Framework in Dermatology to improve the Information Flow between Patients and Doctors	Marco Savini, Joël Vogt, Daniel Wenger	Mobile devices are becoming ubiquitous in every day's life; their time and place independence are reasons for using them in different areas. One such area is electronic health, where patients can install small applications on their mobile devices that help or guide them in the management of their disease. The eSana framework offers a set of tools and approaches that allow the transmission of discrete physiological values electronically in order to evaluate them by medical experts. This paper presents an application scenario in the field of dermatology. It illustrates the information flow between patient and dermatologist including all transformation services. One speciality is the combination of binary image data and structured information about a given condition sent over a mobile network. The main goal is to show a set of necessary components in order to support the relationship between patients and their dermatologists by using medical standards.
2008	21st Bled eConference	Towards Performance Indicators for the Health Care Sector	Jan Luijsterburg, Marcel van Ham, Evelien Brouwers, Martin Smits	The health care sector is a huge industry in many Western countries going through fundamental changes, with increasing needs for new monitoring systems and performance indicators. The aim of this paper is to identify factors that influence the success of external reporting systems, which will ultimately affect the transparency and performance of the sector. We review theory on performance indicators, national care systems, and inter-organizational reporting systems, resulting in formulating several hypotheses. We use a data set and 12 interviews in one case study (the mental health care sector in the Netherlands) to evaluate the hypotheses. Our findings show that the new system is more successful for integrated care organizations than specialized care organizations, and more successful if care organizations have better internal information systems.
2008	21st Bled eConference	The Effect of IS-Auditors' Risk Information on IS-Managers' Perceived Risk	Arno Nuijten, Bert Zwiers, Gert van der Pijl	In their efforts to implement an effective IT-governance framework, many companies have acquired IS-Audit staff to provide executive management with information on IS-risks. For the purpose of effective communication, it would be helpful to understand how IS-Auditors, ISmanagement and executive management shape their perception of IS-risks, since this forms the basis for their judgement and decision making. In this study we focus on IS-Managers' Risk Perception. More precise we investigated the relative contribution of Probability-information and Impact-information to the Perceived Risk of 32 ISmanagers of a financial institution. We conclude that Impact is the more dominant factor determining their perceived risk. We discuss explanations and consequences of the results.

2008	21st Bled eConference	An Empirical Examination of the Relation between Bids and Positions of Ads in Sponsored Search	Tanja Stepanchuk	The rapid growth of e-business in the last years made sponsored search a multi-billion dollar industry, which will continue to grow in the upcoming years. Approximately 50% of the total online advertising spending today is used for sponsored search, where search engine providers use sponsored search auctions for pricing the clicks and ranking the ads based on the bids advertisers submit for a search term. The bid determines not only the price per click, but also the position of the ad in the sponsored search results, consequently costs, revenue and finally profitability of sponsored search. As the advertisers do normally not know the relationship between bids and positions of the ads in the sponsored search results and can thus not calculate the optimal bid, it is particularly challenging for advertisers to know: which response model allows for the robust prediction of a position of the ad by a certain bid and is easy to use. Using real Yahoo! Search Marketing data for bids and resulting positions from diverse e-business sectors we conduct an empirical examination of the relation between bids and positions of the ads in sponsored search results by calibrating different response models. Our findings reveal that the semi-logarithmic model i) is the most robust function for predicting a position of the ad, and ii) provides clear assistance for advertisers in terms of decision making about the bid for a search term, which is necessary to gain a certain position of the ad in the sponsored search results.
2008	21st Bled eConference	Analyzing the Added Value of Electronic Intermediaries in the Dutch Health Care Sector	Benjamin Rensmann, Martin Smits	The CareAuction intermediary offers a reverse auctioning platform to support the allocation of individual maternity care patient requests between purchasers of health insurance companies (acting on behalf of their policy holders) and care providers. Since its introduction in 2005, CareAuction has contributed to a small price drop of maternity care and induced competition on the supply-side of the market. This is a result of increased transparency for both (demand and supply) sides. The quality of the maternity care that is provided is monitored by a newly introduced quality evaluation system, which includes the patient and introduces quality as another competitive factor next to price. Next to CareAuction, other intermediaries are still active in the health care sector, supporting the allocation of care between insurance companies and care providers. Findings indicate that the influence of CareAuction leads to the disintermediation of at least one other intermediary. Theory on electronic intermediaries and market dynamics is used to identify the added values that these two intermediaries (CareAuction and LTZ) create for the purchasers and providers of maternity care in the context of the maternity care market.
2008	21st Bled eConference	From Consumer Preferences Towards Buying Decisions	Michael Scholz	This paper briefly introduces the conjoint analysis as a method to measure consumer preferences. Based on the introduction the conjoint analysis is suggested as preference measuring method in product recommender systems. The challenges and limits in applying the conjoint analysis to product recommender systems are analysed and discussed. In the end we present a set of adaptations to the traditional conjoint analysis which address the mentioned challenges and limits.
2008	21st Bled eConference	Prediction Markets: Fundamentals, Key Design Elements, and Applications	Stefan Luckner	Over the last couple of years, interest in prediction markets as a forecasting method has continuously increased in the scientific world and in industry. Markets provide incentives for information revelation and can be used as a mechanism for aggregating information. So far, prediction markets have done well in every known comparison with other forecasting methods. Whereas information aggregation is only a byproduct of most traditional markets, prediction markets are set up with the explicit purpose of soliciting information. Engineered carefully, prediction markets can directly guide decision making. This paper describes the fundamentals of prediction markets as well as their key design elements. We thereby aim at giving insights into design decisions which have to be made by prediction market operators. Moreover, we contribute to the literature by giving an extensive overview on fields of application of prediction markets which have been discussed in academic literature.
2008	21st Bled eConference	Economics of Virtual Communities – A Financial Analysis of a Case Study at the Berlin Stock Exchange	Stefan Stieglitz, Christoph Lattemann, Jan vom Brocke, Christian Sonnenberg	New web based technologies such as social software enables users to interact and collaborate over the internet. Virtual communities are set up by companies in order to bridge the gap between customers and companies and thus serve as a customer relationship management tool. As a result of a continuous dialogue with customers or with companies' employees innovations and improvements of products and processes can be generated. Despite intensive discussions about the technical aspects of virtual communities and their value proposition, hardly any research explicitly addresses a financial perspective. Thus, the objective of this paper is therefore to develop a measurement system for the financial performance of a virtual community platform reflecting specific economic conditions relevant in a certain situation. As a proof of concept, the theoretical model is then applied to a case study conducted at the Berlin stock exchange.



2008	21st Bled eConference	Value-Based Partnering Structure Design for Networked Businesses: A Multi-Method Approach	Roberto Santana Tapia, Novica Zarvic	The organizational practices required by dynamic market demands and increasing competitive markets include the formation of networked businesses. For the participants in a networked business to be able to promptly react to customers' needs, they must set up as cornerstone a well-defined collaborative partnering structure. This paper first describes a framework that assists in the design of networked businesses. Then it discusses some approaches, such as object-oriented modeling, multi-agent modeling, and the use of ontological modeling as tools for designing networked businesses. However, these tools have fundamental shortcomings when dealing with the partnering structure concept. The paper proposes a new multimethod approach for the formalization of such a structure. Using an example, we illustrate that existing approaches for value modeling, roles specification, and responsibilities definition can be used successfully if employed in a unifying way to address this structure concept.
2008	21st Bled eConference	A Conceptual Framework for Business Model Research	Susan Lambert	The business model concept is useful in analysing and communicating the essence of a business, and for predicting the implications of electronic commerce on an existing business. As useful as the concept is, there is a lack of consensus among researchers on the definition of a business model, and on the constructs of the business model. The aim of this paper is to propose a conceptual framework for business model research that provides a basis for theory development and debate. Without such a conceptual framework business model research will progress in an ad hoc fashion and be directed by the immediate needs of individual researchers. The financial reporting conceptual framework developed over many years by the accounting profession, is used as a mould for the hierarchically structured, business model conceptual framework that is the subject of this paper. In addition the notion of primacy of concept is used to determine the business model elements and architecture. It is envisaged that the business model conceptual framework will guide future research and that it will be reviewed and refined, just as the financial reporting conceptual framework has been reviewed and refined over decades.
2008	21st Bled eConference	Introducing Cultural Fit Factors to Investigate the Appropriateness of B2B Technology Adoption to Thailand	Savanid Vatanasakdakul	This study develops an integrative model and conceptually-based scales for evaluating the extent to which national culture impact the B2B technology adoption in Thailand. It is the first paper that introduces a method to measure the fit between Thai culture and B2B technology adoption, which the researcher refers to 'cultural fit'. The discussion on the current research gap in national cultural theories in relation to IT adoption research, theories of fit and current research on Thai's culture were presented. Based on this literature as well as qualitative data collection, pre-test and pilot test surveys, questionnaire items were developed and analyzed. The resulting dimensionality of cultural fit, used for investigating the appropriateness of B2B technology adoption in Thailand, includes personal relationship, long term relationship, interorganisational trust, ability to communicate in English language and materialism.
2008	21st Bled eConference	Multi-Level Analysis of Complex IS Change: A Case Study of eCustoms	Boriana Rukanova, Eveline van Stijn, Helle Zinner Henriksen, Ziv Baida, Yao-Hua Tan	Although much efforts have been devoted to understanding IS change processes that take place in a single organization, there is very little understanding about the change processes that affect IS decisions and developments across organizations. In this paper we provide a conceptual framework to analyze and explain complex multi-level IS change. To demonstrate the use of the framework we apply it to analyze changes in the domain of eCustoms, as in this domain we find rich examples of multi-level IS changes. The framework combines the work on "motors of change" by Van de Ven and Poole with Pettigrew's notions of "vertical" and "horizontal" levels of analysis. Based on our case analysis we conclude that the conceptual framework proves to be a useful lens through which to analyze complex multi-level IS change. We propose extensions of the framework by identifying different interaction types between the changes and we outline directions for further research. In this respect, this paper can be seen as a contribution to the existing IOS research on change.

2008	21st Bled eConference	Collaborative Shopping Networks: Sharing the Wisdom of Crowds in E-Commerce Environments	Peter Leitner, Thomas Grechenig	Social web services have gained enormous popularity over the past years because of a steadily increasing demand for user participation in the whole web sphere. Social networks like MySpace or Facebook and media sites like Flickr or YouTube clearly demonstrate the variety and functionality of social sites. Significantly affected by this trend, online retail and e-commerce environments rapidly changed within the last years. Users were integrated into existing e-shops and mutated from simple buyers to fully integrated customers. Thus, a modern shop visitor can recommend products, leave comments, rate vendors or publish wish lists. This recent phenomenon, called social commerce or social shopping, leads to more customer satisfaction, user participation and social interaction. Accordingly, there is a strong demand for innovative social commerce models and concepts like crowdsourcing, consumer generated content or live shopping. This paper shows the results of an extended analysis of collaborative shopping networks and demonstrates the development of a representative interaction model. An evaluation of social commerce models gave insights into functionalities, interactions and entities of successful social web applications. To create a collaborative shopping network model, conventional web services as well as selected best practice cases were analyzed in detail. To meet the demands of modern consumers, success factors are presented in the final part.
2008	21st Bled eConference	Testing a Multi-Channel Service Design Method	Luuk P.A.Simons, Harry Bouwman	Although the multi-channel shopper has recently become a dominant consumer type, firms are still struggling with consciously designing their multi-channel service mix. In this paper, a design method based on QFD (Quality Function Deployment) is introduced and tested for defining eservices that have to function in a multi-channel context. Within a design research perspective, a structured field experiment was conducted, using control group testing. Two measurement instruments were used: questionnaires for business participants (n=62) and a protocol for external observers (n=56) to measure performance of design tasks throughout the process. We found that business teams tend to bias towards the supplier's perspective at the expense of customers and channel partners. The new method scored significantly better than the control group method on a number of evaluation criteria: customer orientation, channel coherence and communication between different stakeholder perspectives.
2008	21st Bled eConference	Should 'virtual' mean 'vague'? A plea for more conceptual clarity in researching virtual organisations	Kai Riemer, Nadine Vehring	Around fifteen years ago the concept 'virtual organisation' (VO) was coined to describe changes in organisational structures of value creation as a reaction to developments in modern market environments. Since then, the VO as a concept has been used to describe different things in different contexts, so that today we find a rather unsatisfying mix of VO notions in the literature. Moreover, in many articles the VO remains underspecified and vague; sometimes even a mismatch exists between VO definitions provided and examples discussed. Motivated by these observations we carried out a literature analysis to explore differing notions of virtual organisation. The contribution of our study is twofold. First, we identify and describe in conceptual detail three distinct types of VO as the basis for future research endeavours. Second, we point to a need for conceptual clarity in researching VOs in practice, in light of the rather different management challenges of the three identified types.
2008	21st Bled eConference	Informal eCollaboration Channels: Shedding Light on "Shadow CIT"	Elitsa Shumarova, Paul A. Swatman	There is some evidence of the unabated proliferation of employee-autonomous, informal in an enterprise sense, collaborative information technologies (CITs) to perform collaborative activities despite huge investments in CIT enterprise systems. This article will introduce the metaphorical construct of "shadow CIT" (similar to "shadow IT" – Raden, 2005; Schaffner, 2007) to describe the strategic choice to use autonomous CITs instead of formal enterprise CITs. "Shadow IT" has been defined by Raden (2005) as a set of IT tools used "for performing IT functions but not part of the mainstream IT organization" (p.1). Similarly, "shadow CIT" solutions are employee-autonomous: they are not implemented as part of the organisational IT infrastructure, neither have they received any targeted organisational investment. Several research questions are explored in this paper. The existence of "shadow IT" has been argued to imply a failure on the part of enterprise IT to provide all of the services to meet their users' needs. Does the existence of "shadow CIT" imply a failure of enterprise CITs of a similar kind? If shadow CITs are found to be [capable of] filling gaps within enterprise CITs, what kind of gaps are these? Often, without being able to articulate why, users appear to shun solutions and good architecture within enterprise CITs in favour of the ability to get their work done through autonomous "shadow" solutions. What kind of motivation may be driving such decisions?

2008	21st Bled eConference	Research in Progress: Opportunities for eCollaboration in the Finnish Archipelago	Kristian Packalén	Five municipalities in the Turku archipelago in Finland face a new challenge when they are merging to form one city on January 1st, 2009. This paper discusses the challenges ahead and describes the early stages of a research and development project which will propose, develop and implement solutions, especially involving interactive technologies, for a new city that is being formed. There is a need for new technologies and changes in working methods due to diminishing resources and physical boundaries. The need for improved collaboration is urgent for most of the small, geographically isolated, inhabited islands in the Finnish archipelago, but due to time constraints even more urgent for the new city being formed. This paper outlines how interactive web-based and mobile technologies can enable eCollaboration within and between islands and groups of stakeholders.
2008	21st Bled eConference	Synergetic Learning Communities: Towards a New Model of University/Industry Learning Partnership	Olivera Marjanovic	This paper critically analyses the main challenges related to teaching and learning in emerging business disciplines. It focuses on the field of Business Intelligence (BI), as a prime example of dynamic, industry-driven discipline where the content as well as methods and frameworks for professional practice are still emerging and co-evolving with teaching practices. However, the work presented goes beyond BI and is equally relevant for any other emerging teaching and professional field of Business Information Systems (BIS). The paper argues that order to address the identified challenges, we need to move away from the traditional transmission model of teaching and adopt a new educational model based on the concept of synergetic learning communities designed to cross university industry / boundaries. To support the argument, the paper uses a case study of an active world-wide, synergetic BI learning community called Teradata University Network (TUN). Most importantly, the paper offers a reflective analysis of the changing role of university teacher that could be directly attributed to the new educational model. The reported findings are the result of an ongoing participatory action research project in this area.
2008	21st Bled eConference	CSCW and Enterprise 2.0 - towards an Integrated Perspective	Michael Koch	In CSCW we are researching support for collaboration in work groups for several decades now. Web 2.0 and Social Software entered this field from another starting point recently, and quickly expanding towards support for collaboration in enterprises (Enterprise 2.0). However, the interaction between both fields is minimal. In this paper I am trying to contribute to bridging the gap by identifying the core contributions of the two fields, and how they can be integrated or used to the benefit of both fields.
2008	21st Bled eConference	The Long Tail of Blogging: A Nurturing Mechanism for Sustainable Online Communities with Niche Interests	John Lenarcic, Pradip Sarkar	A qualitative study of the motivating factors behind sustainable weblogs is presented, based on the dissection of group behavioural characteristics in the common practice of two niche interest music blogs. Preliminary observations suggest that the emerging business consumer demographic known as the "long tail" (Anderson, 2006) is at play in the ecology of the blogosphere.
2008	21st Bled eConference	Facilitating Standardization through Living Labs – The Example of Drug Counterfeiting	Alexander Kipp, Stefan Schellhammer	The increasing threat inherent to counterfeited drugs requires coordinated effort among multiple actors with diverging interests. Although multiple initiatives exist, no comprehensive and promising development and diffusion of a commonly applicable and interoperable solution has taken place so far. Agreeing on standards is an essential step on the road to a successful initiative on drug counterfeiting. To facilitate standardization, especially the initiation of a standardization process, we propose the concept of Living Labs as an innovative developing and testing environment serving multiple purposes. Testing solutions in real-life-contexts, aligning multiple interests and resulting in a pre-standard and a proof-of-concept are the advantages of this concept which facilitate the participation and coordinated action among a broad set of different stakeholders.

2008	21st Bled eConference	Towards Asymmetric Information for the G2B Inter-Organizational Networks	Jianwei Liu, Yao-Hua Tan	With the emergence of innovative (networked) organization forms such as enhanced supply chain collaboration and modern forms of public-private partnerships (PPP), effective and efficient collaboration among network participants becomes crucial but often difficult to achieve. One of the leading factors which cause such defective collaboration is the asymmetric information issue among the network participants. Two identifiable problems resulted by the asymmetric information are the moral hazard and adverse selection problems. Former studies mainly positioned asymmetric information problems within the context of traditional business environment; in this paper we suggest that similar problems may also occur in the Government to Business (G2B) context. We discuss these issues via a collaborative pilot case study (hereafter, Beer Living Lab) between the Dutch Tax and Customs Administration (DutchTCA) and a Dutch beer company (Beer Co.). The paper reveals that both moral hazard and adverse selection problems may occur during the G2B interactions and tamper the relationships between the two. In addressing these problems, we propose an advanced information technology (IT) solution, drawing upon an effective and efficient information sharing schema that can on the one hand minimize the moral hazard by enhancing supply chain management for the business and on the other hand preventing tax fraud for the government. Further we argue that the application of the advanced IT may serve as a strong signaling and screening tool for overcoming the adverse selection problem during the PPP forming and result in a win-win situation. The insights learned should benefit those involved in various inter-organizational business networks, partnership as well as supply chain management settings.
2008	21st Bled eConference	Exploring the Impact of Government ICT Initiatives on the Livelihood of Australian Rural Communities	Mohini Singh, Alemayehu Molla, Stan Karanasios, Jason Sargent	This paper explores the impact of e-learning and e-government initiatives on rural communities in Australia. It discusses some of the initiatives, analyses a number of impact analysis frameworks, and includes the findings from a selected set of initiatives. It is a preliminary analysis of qualitative data discussing the outcomes achieved from the initiatives in terms of social, human, financial and physical capital impact on rural communities.
2008	21st Bled eConference	DYONIPPOS: Proactive Knowledge Management	Josef Makolm, Silke Weiß, Doris Reisinger	Efficient and effective knowledge management plays an increasingly important role in knowledge intensive organizations. That's because on the one hand knowledge workers need more and more knowledge to fulfil their daily work and on the other hand because the ad hoc part of a process increases. In addition the knowledge acquisition for the knowledge workers is increasingly catchier because of the growing information overload and the heterogeneity of the systems in use. Therefore the vision of the research project DYONIPPOS (DYnamic Ontology based Integrated Process Optimisation) is to support the knowledge workers automatically with the required knowledge just in time, while avoiding additional work and violations of the knowledge worker's privacy. Furthermore DYONIPPOS will support knowledge organizations by developing an organizational knowledge data base, supporting the management of the knowledge data base and visualizing of topic hierarchies and landscapes. DYONIPPOS sets up a context sensitive, intelligent and agile assistant based on semantic and generic knowledge discovery technologies [Rath, A. Kröll, M. Andrews, K., Lindstaedt, S., Granitzer, M., Tochtermann, K., (2006)]. This article is structured as follows: Section 1 addresses the relation between the applied approach and the challenge in e-Government and summarizes the aims of the research project DYONIPPOS. In Section 2 the semantic and knowledge discovery technologies used are presented. The paper concludes with the presentation of the use-case project, showing current results of the tests and screenshots of the updated DYONIPPOS application.
2008	21st Bled eConference	Studying eParticipation in Government Innovation Programmes: Lessons from a Survey	Sabrina Scherer, Christian Schneider, Maria A. Wimmer, John Shaddock	While eGovernment is a well-established field in research and practice, eParticipation trails behind with only a low number of programmes and strategies at the moment. With the lessons learnt from a survey for studying eParticipation in Government Innovation Programmes and Strategies, the contribution at hand analyses the degree of integration of eParticipation in ICT and eGovernment research and implementation programmes and strategies. It sets out the types of approach necessary to accelerate progress. Together with insights from two projects that analysed eGovernment innovation strategies, the synthesis and comparison of the survey data led to recommendations for activities and measures for innovation programme managers to include eParticipation in future programmes and strategies. The work was performed in the context of DEMO_net1, the Network of Excellence on eParticipation.

2008	21st Bled eConference	One Stop eGovernment for Small and Medium-Sized Enterprises (SME): A Strategic Approach and Case Study to Implement the EU Services Directive	Frank Hogrebe, Wilfried Kruse, Markus Nüttgens	In view of EU services directive, providers of public services are required to reengineer their product and process organization. Of the underlying information systems and the IT infrastructure this has direct influence on the organization. The fundamental requirements include the establishment of points of single contact for enterprises and the procedures and formalities relating to access to a service activity and to the exercise thereof by electronic means. In addition to the federal and regional authorities, the municipalities are especially affected by this, as they hold most of the process and decision-making authorities of the government services sector. Virtualization and bundling of service goods will be subsequently introduced as essential differentiation criteria. In doing so, the degree of virtualization of public services is already high in many places. Nevertheless, this development with respect to the bundling of services is still in the initial phase. This article presents a strategic approach to the bundling of public services. The strategy approach will be substantiated for the state capital of Düsseldorf in terms of a "One-Stop eGovernment" with main focus on small and medium-sized enterprises.
2008	21st Bled eConference	PersoBOX: A Personalization Engine between ERP System and Web Frontend	Christoph Adolphs, Petra Schubert	The demand for personalization functions in e-shops is increasing steadily. In order to fulfil customer requirements best and to stimulate the customer's buying experience positively, companies are aiming at an easy technical solution to the integration of ERP master data, CRM data, and transactional data from web shops. The current paper presents the state of the art in personalization in e-commerce and summarizes remaining problems. An integrated toolset, the so called PersoBOX, is introduced as a solution which connects the realm of ERP systems with web shops. We present a schematic architecture of the PersoBOX describing the data flows, as well as processes and functions to be implemented. The presentation of the architecture is a preliminary result of an ongoing research project in the area of personalization.
2008	21st Bled eConference	Standing on the Shoulders of Giants: Are ERP Success Factors Relevant for EDRMS Implementation?	Thuy-Linh Nguyen, Paula M.C. Swatman, Bardo Fraunholz	Records management has been a central concern for organisations in both private and public sectors since the beginning of the 21st century. This new focus is due both to the introduction of laws, regulations and standards affecting corporate information management; and to the way records are changing from paper-based to "born-digital" and "made-digital". The need for an effective automated system to manage records is now greater than ever, with Electronic Document and Records Management Systems (EDRMS) being the most likely solution. Despite their increasing popularity, however, successful uptake of such systems is not yet widespread and research into their implementation is still limited. This paper investigates the possibility of applying existing Enterprise Resource Planning (ERP) models to EDRMS by analysing the substantial body of literature on success factors for ERP implementation, both qualitatively and quantitatively; and then comparing these with the still relatively limited literature on EDRMS.
2008	21st Bled eConference	Usability of CRM Systems as Collaboration Infrastructures in Business Networks	Olaf Reinhold, Rainer Alt	Collaboration among companies is a major development in business and electronic business concepts. While groupware, teleconferencing or e-mail-systems are widespread and crossfunctional in nature, support for collaboration in business processes has mainly been studied in the engineering and supply chain area. Virtual organizations and networked business also require collaboration in customer-oriented processes such as the management of offer generation, campaigns, customer data or complaints. While the concept of collaborative customer relationship management (CRM) has been discussed by several authors already, the technological scenarios available to implement these processes are still open for research. This paper investigates the role of CRM systems as application architectures for collaborative CRM. The findings show that CRM systems provide only basic functionalities for inter-organizational collaboration and seem currently not able to support collaborative CRM without help of additional supporting tools or extensive customizing of system functionalities.
2008	21st Bled eConference	Investment in Business Software and Perceived Utility: An Empirical Study	Petra Schubert, Gianfranco Walsh	Authors have identified many different reasons why companies invest into IT and there has been much discussion of how IT can generate value. This paper adds to the discussion of IT value generation by investigating investments in business software for the support of business processes in Swiss SMEs. In an empirical survey on the future IT investment for process support, 917 questionnaires were collected and analysed. In a first step, using exploratory factor analysis, two factors representing different sets of business software modules were identified: (1) basic modules and (2) specialized modules. In a second step, using cluster analysis, we identified four typical characteristic company profiles regarding investments in business software: (1) the IT convinced, (2) the IT differentiators, (3) the IT sceptics, and (4) the IT pragmatists. To further explore and profile the clusters, we ran several bivariate analyses with selected questions from the questionnaire. This study has both theoretical and managerial relevance as it helps to understand firm attitudes towards investments and business software.

2008	21st Bled eConference	Changes in Australian Winery Websites Over a Five Year Period	Robyn Davidson	This paper presents the results of a study of Australian winery websites over a five year period. The research sets out to determine if Australian winery websites have matured and increased in content and functionality since 2003. Data collected in 2003 and 2007 have been analysed to determine if Australian winery websites have significantly changed to provide more to satisfy customer requirements. The results indicate that overall more customer requirements are being met; however, Australian winery websites still have some way to go before customers will be fully satisfied.
2008	21st Bled eConference	Towards a Process Model for Digital Content Analysis – The Case of Hilti	Jan vom Brocke, Alexander Simons	Enterprise Content Management (ECM) is an emerging concept in Information Systems (IS) research providing the means for an efficient administration of digital content. However, there are lots of obstacles which may face enterprises when adopting ECM. In particular the diligent analysis of an organisation's individual content situation often turns out to be a major success factor. However, adequate guidelines for performing content analyses can hardly be found in ECM literature. In this paper, we propose a process model for analyzing content and present the first results that have been gained during its application within the Hilti Corporation.
2008	21st Bled eConference	The Beergame in business-to-business eCommerce courses – a teaching report	Kai Riemer	In this teaching report I demonstrate the use of the so-called beer distribution game in teaching business-to-business eCommerce courses. The beergame is a role-play supply chain simulation game that lets students experience typical coordination problems of (traditional) supply chains without information sharing and collaboration. With this paper I want to show how the beergame can be used to provide students with a more profound understanding of the reasons why eCommerce technologies are used in contemporary supply chains; I also want to share my experiences and beergame materials with other information systems scholars in the field. To this end, I will introduce the beergame, demonstrate its use in a classroom setting, and show how I embed the game in a typical B2B eCommerce syllabus.
2009	22nd Bled eConference	Users' Awareness of Privacy on Online Social Networking sites – Case Facebook	Virpi Kristiina Tuunainen, Olli Pitkänen, Marjaana Hovi	Online social networking offers a new, easy and inexpensive way to maintain already existing relationships and present oneself to others. However, the increasing number of actions in online services also gives a rise to privacy concerns and risks. In an attempt to understand the factors, especially privacy awareness, that influence users to disclose or protect information in online environment, we view privacy behavior from the perspectives of privacy protection and information disclosing. In our empirical study, we present results from a survey of 210 users of Facebook. Our results indicate, that most of our respondents, who seem to be active users of Facebook, disclose a considerable amount of private information. Contrary to their own belief, they are not too well aware of the visibility of their information to people they do not necessarily know. Furthermore, Facebook's privacy policy and the terms of use were largely not known or understood by our respondents.
2009	22nd Bled eConference	Social Networking Sites and Equal Opportunity: The Impact of Accessibility	Denise Leahy, Ultan Ó Broin	The European Union has recognised the importance of information technology in addressing issues of social inclusion and equal opportunity and has defined eInclusion as part of the i2010 initiative (European Commission, 2005). The use of social networking applications by individuals and by companies is growing and industry analysts have identified the benefits to organisations of using Web 2.0 social collaboration tools (Boulton, 2008). This research examines the use of social networking sites by people with visual impairments, exploring whether there is full access and therefore social inclusion. Or is there, as is claimed (Whittle, 2007), a situation that although "sites such as Facebook and MySpace are meant to have ushered in a new era of online collaboration, (but) not everyone is invited to the party"? If there is a social exclusion from sites that integrate with the enterprise for business reasons, what are the implications for established accessibility guidelines and for e-business theory?
2009	22nd Bled eConference	Motives for using Social Network Sites (SNSs) – An analysis of SNS adoption among students	Jan vom Brocke, Daniel Richter, Kai Riemer	Social Network Sites (SNSs) are widely used and have been object of research for some years. Existing studies have investigated single Social Networking (SN) phenomena or the usage of particular SNSs. However, only little research has been conducted on the motives for using SNSs. The paper at hand will present a survey for gaining insight into the motives of SNS usage and potential contextual factors that might shape these motives. The study was conducted in two steps: 1) Generation of hypotheses by guided interviews; 2) Test of hypotheses by two online surveys. Drawing on the results as well as the current body of research, the authors will identify different motives for the usage and non-usage of SNSs and determine potential contextual factors.

2009	22nd Bled eConference	Customer Loyalty in Social Virtual Worlds	Matti Mäntymäki	Social virtual worlds (SVWs) are an emerging phenomenon in terms of numbers of users as well as business environments. When it comes to the economic viability of SVWs, keeping existing customers active, i.e. customer loyalty, is a sine qua non. In this paper we investigate customer loyalty with two key variables: continuous use intention and purchase intention. We apply the expanded expectation-confirmation model by Thong et al. (2006) and empirically test our research model with data collected from 965 Canadian SVW users. Structural equation modelling is used to analyse the data. Perceived enjoyment was found to have the strongest impact on continuous use intentions whereas perceived critical mass was the main predictor of purchase intention. Finally, contrary to previous studies, satisfaction did not have a statistically significant impact on loyalty.
2009	22nd Bled eConference	A Mobile Accident Report System	J. Felix Hampe, Stefan Stein	Rarely performed documentation tasks usually require support for the user so that the data is recorded both completely and correctly. The broad market penetration with mobile devices like smart phones provides new possibilities for giving support for these kinds of tasks. This paper focuses on one particular widely-used instance of such a documentation task, namely the European Accident Report (aka Agreed Statement of Facts on Motor Vehicle Accident). Firstly we discuss the advantages of media-break-free processing of all the relevant data. Secondly we present the client part of the application, which allows on-site documentation by any of the parties involved. Both application parts can be used for processing claims in the back office. We highlight the possibilities of service-chain integration, the digital accident file generated by using this solution and the resultant advantages for media-break-free processing of claims.
2009	22nd Bled eConference	A Comparison of Mobile Payment Procedures in Finnish and Chinese Markets	Junying Zhong	Researchers are particularly interested in factors that affect the adoption, innovations and diffusion of mobile payment, which is a typical and wide application of ICTS (Information Communication Technology Services) in developed and developing countries. Though mobile payment is an exciting domain and rapidly evolved in recent years, the existence of standardized, interconnected and widely-accepted mobile payment procedures is crucial for successful diffusion of mobile payment and has mobile commerce globally, even in one country or region. In this paper we make a comparison of mobile payment procedures in the Finnish and the Chinese market. Current payment procedures can be categorized by using strategic, participatory and operational criteria, according to the morphological method. Based on these, we analyze the current constraints on the mobile payment procedures in the Finnish-Chinese market in order to make it clear whether we can develop a generally accepted mobile payment integrative solution or merge different procedures into an interoperability system via interconnected participants with high-level protocols and regulation when necessary, because different market participants may have separate benefits.
2009	22nd Bled eConference	Enhancing collaborative CRM with mobile technologies	Olaf Reinhold, Rainer Alt	Mobile technology offers a high potential to significantly transform the ways how a company can interact with their customers and even with own employees. In recent years researchers started to analyze those potentials from the perspective of customer relationship management (CRM) but mainly concentrated on traditional business-to-customer (B2C) relationships. The concept of collaborative CRM extends this view of traditional CRM to virtual organizations and networked businesses. While the concept of collaborative CRM has been discussed by several authors already, the impact of mobile technology is still open to research. This paper investigates the role of mobile technology in collaborative CRM based on existing research, scenarios and supporting systems. The goal is to increase insight about the current role of mobile devices such as smartphones or personal digital agents (PDA) in collaborative CRM business scenarios and the support of these scenarios by CRM systems. From the broad scope of collaborative CRM the focus of this research is on collaboration with customers. The findings show that current mobile scenarios merely incorporate the collaborative CRM concept and that CRM systems provide only basic functionalities for incorporating mobile devices in collaborative CRM processes.
2009	22nd Bled eConference	Adoption of Personalisation Mobile Services: Evidence from Young Australians	Sally Rao Hill, Indrit Troshani	The adoption of mobile services is often studied at a generic level and limited research has addressed personalisation service adoption. This paper proposes a framework for assessing the likely success or failure of personalisation mobile services. It was found that enjoyment and usefulness are the most important factors in attracting users to adopt personalisation services. Comparing these findings with those of similar studies in the literature we suggest that predictors of mobile service adoption may vary depending on the type of services. Furthermore, explanations and predictions based on rational and intuitive models of consumer behaviour in the mobile space may be insufficient and inadequate for determining investments in novel mobile services.

2009	22nd Bled eConference	The Management of Medication Information – Data Collection on a Physicians' Internet Discussion Board	Eeva Heiro	The healthcare sector is highly information intensive. Information on patient specific medication is usually essential for clinicians when treating patients. However, information is not always available when required. Electronic patient records (EPRs) have in many cases enhanced the situation but there is often a need for exchanging information across various organisations. In Finland, there is a plan to integrate healthcare providers' information systems into a single national system. To study physicians' perceptions on this forthcoming development, in particular the management of medication information, a data collection was organised on a closed internet discussion board for physicians. The results show that the physicians were not convinced of the usability of the national system because they already have problems with slow EPRs within one organisation. According to them, another basic problem is patients' general lack of knowledge about their own medication regimen. The discussion on the discussion board was not extremely active but the data collection provided fruitful answers and was a useful experiment to keep in mind for possible future data collection.
2009	22nd Bled eConference	Seeing a Patient's Eyes: System Trust in Telemedicine	Janis Gogan, Monica Garfield, and Ryan Baxter	This paper reports on system trust and interpersonal trust issues revealed in an embedded-case study of two telemedicine services offered by a teaching hospital. Consistent with McKnight (2005) perceived system competence was an important dimension of system trustworthiness. Drawing on representation theory (Wand and Weber, 1995) we observed: 1. Some clinicians feel telemedicine provides a better representation than they can achieve in conventional practice. 2) The ability to control specific technical features leads to increased representational quality, perceived system trustworthiness and usage. 3) Some clinicians adapt the telemedicine system to improve it. 4) Some users do not distinguish between the technology artifact and a human helper when judging system trustworthiness. We conclude with two key findings: 1) judgments about system trustworthiness interact with users' technical and clinical skills and 2) system trust and interpersonal trust are reciprocal.
2009	22nd Bled eConference	Augmenting Successful UK Healthcare IS Adoption and Diffusion: An Analysis of Inherent and Emergent Organizational Structures	Matthew W. Guah, Raymond A. Hackney, Peter Baloh	The evidence suggests that information systems (IS) continue to be designed, adopted and diffused within public sector organisations to support the 'reform' agendas of national governments with a particular emphasis upon improving the accessibility and transparency of services. It is argued that Actor-Network Theory (ANT) provides useful theoretical insights into how stakeholders are able to organise in this respect. This is to highlight structures where non-human actors adopt a mechanism to examine advanced technologies (inherent structures), and structures that actually emerge as human actions engage with the context, ie healthcare IS adoption and diffusion processes. The research in this paper is based on a qualitative approach analyzing data collected from more than hundred respondents in the UK National Health Service (NHS). An attempt is made to illustrate that technology is just one of a number of heterogeneous socio-technical elements that must be managed within a successful information systems project. The paper concludes by offering ideas and directions for future research in the health sector using ANT analysis.
2009	22nd Bled eConference	Moving an elnnovation from a Living Lab to the real world Politically savvy framing in ITAIDE's Beer Living Lab	Eveline van Stijn, Boriana Rukanova, Anthony Wensley, Yao-Hua Tan	Living Labs have been established as real-life pilot settings in which IT innovations are developed and validated. Once these steps have been completed, these innovations are ready to be moved out of the Living Lab environment into the real world. In many cases Living Lab innovations require not only technological but also socio-political and institutional changes to be made in order for them to be adopted. The need of socio-political and institutional changes becomes especially visible in cases where Living Lab participants attempt to propose innovative solutions for domains that are highly regulated. The reason for that is that in such cases, often the existing legal requirement would need to be adjusted first, in order to create grounds for the further adoption of the innovation. The question as to how to achieve such legal changes related to Living Lab innovations in a highly regulated environment has received very limited attention. In this paper, we specifically focus on understanding of framing processes and how they are used by the Living Lab participants in a politically savvy way to mobilize a multi-level network of actors in their attempts to bring institutional change. We further investigate this framework through a case study involving a variety of framing processes that took place in the Beer Living Lab. The Beer Living Lab is part of the ITAIDE project that aims to develop and test an eCustoms solution for international trade. In addition to our contribution of the conceptual framework and the accompanying empirical case study, we also identify further implications for practitioners who are involved in similar Living Labs in highly regulated environments.



2009	22nd Bled eConference	Competing in the Message Market: A Teaching Case	Denise Tolhurst, Susan P. Williams	This paper describes the innovative strategies that Australia Post (AP) is using to compete in a changing message market, with the aim of providing interesting and relevant case material and teaching resources to support student learning at a tertiary level. The case aims to explore AP's response to an increasingly competitive global message market by continually seeking innovations that utilise existing organisational strengths and technological opportunities. The case description is based on public documents and includes discussion questions and teaching notes. The results of an evaluation of trials of the case application in the classroom are reported.
2009	22nd Bled eConference	The lost "E" in Clustering: an Australian Case Study	Helen Cripps, Jari Salo	The research investigated the use of information communication technology within collaborative relationships in a multi industry cluster in Australia. The study found that collaborative business relationships were present in the cluster, however the role of ICT in these relationships was not significant due to a number of industry characteristics displayed across the cluster, such as secrecy, a high need for security and low ICT adoption.
2009	22nd Bled eConference	Activity, ICT, and Material Infrastructure in Complex Multi-Organisational Settings: An Assessment of Innovation Potential for Pharmaceutical Cold Chain Transport and Handling	Allen Higgins, Anita Mangan, Angela Kerrigan, Suzanne Laffan, Stefan Klein	What are the infrastructural possibilities for introducing novel ICT based services in the international multi-modal logistics environment? The specific case of nascent real-time reporting potentials for cold chain transport and handling in a hybrid data carrier environment is explored and an infrastructural analysis indicates the technical suitability of a GSM telemetry. Activities and technology-in-use were also observed and our analysis suggests that a socio-organisational infrastructure of uniform or standard practices, policies, procedures and software is infeasible and may in fact be undesirable in complex, international, multi-organisational settings.
2009	22nd Bled eConference	An Empirical Investigation of Mobile Health Adoption in Preventive Interventions	Mihail Cocosila, Norm Archer	Innovative applications of mobile information and communication technology (ICT) include the recent use of mobile services for preventive health interventions. We report on a one-month empirical study of such an intervention to evaluate a model that includes positive user adoption factors, together with user perceptions impeding adoption. Findings revealed intrinsic motivation to be a sufficient reason for adoption, and a multi-faceted perceived overall risk as the main reason for resisting the new mobile health service.
2009	22nd Bled eConference	Procurement Maturity, Alignment and Performance: a Dutch Hospital Case Comparison	Marijn G.A. Plomp, Ronald Batenburg	Procurement is an important supporting business function, with which competitive advantage can potentially be achieved. In this paper, the relation between maturity and alignment in procurement on the one hand, and procurement performance on the other, is investigated in the case study setting of three Dutch hospitals. The hospitals are benchmarked and it is shown that an increase in maturity of their organization, processes and IT is needed to achieve more alignment and hence better procurement performance. Our general finding is that there is a positive relation between maturity and alignment and performance in procurement. Possible implications for theory and practice are given, as well as directions for future research in this area.
2009	22nd Bled eConference	A Computational Approach Towards Eliciting Needs - Driven Bundles of Healthcare Services	Sybre de Kinderen, Jaap Gordijn, Rose-Marie Dröes, Franka Meiland	We propose a method, e3-service, to reason about satisfying customer needs (problems stated by the consumer) by means of a bundle of multi-supplier service bundles (solutions from specific suppliers). The e3-service method represents customer needs, desired consequences by the customer, and the services that realize those consequences in a multi-perspective service catalogue. This catalogue is used by a reasoner, which elicits customer needs and desired consequences, and matches these consequences with services offered by suppliers. The e3-service method has been implemented in software to demonstrate its feasibility. In this paper, we show how e3-service reasons about finding services for a consumer need using a case from the healthcare industry.

2009	22nd Bled eConference	Developing organizational capabilities in SMEs: Enabling environmentally sustainable ICT	Steve Elliot	Information and Communication Technologies (ICT) have made significant contributions to business innovation and wealth generation for organisations, societies and nations. ICT have also made significant contributions to environmental degradation. Confronted by the necessity to respond to growing environmental concerns in society, regulatory imperatives and market pressure, many business leaders express uncertainty about how best to proceed. The challenges of environmental sustainability are particularly acute for small and medium enterprises (SMEs) due to their limited capabilities to initiate significant change without external assistance. With a track record of investigating diverse aspects of Information and Communications Technology (ICT) applications and practices in organizations, Information Systems (IS) researchers appear well placed to provide such assistance. Unfortunately, IS researchers have failed to engage with environmental sustainability of ICT as either a problem requiring resolution or as an opportunity to present innovative solutions. This paper aims to facilitate development of SME business practice in the environmental sustainability of ICT and promotion of an industry-relevant IS research agenda. Contributions are: identification and categorization of a diversity of literature sources to inform SMEs on the topic; proposal of a stages of development framework for building SME capabilities in ICT environmental sustainability based on current literature and a case study of leading SME practice; and proposal of an industry-relevant IS research agenda. Implications of the framework for SMEs and for IS research are discussed.
2009	22nd Bled eConference	An eCommerce Perspective on Carbon Trading	Roger Clarke	During the last decade, it has become widely accepted that global warming is not simply a natural cycle but that it is being exacerbated by human activity and that the impact of emissions from man-made technologies is substantial and critical. Reduction in the release of greenhouse gasses is therefore very urgent. Rather than direct regulatory action, governments around the world have been convinced to harness the power of markets to the problem. Emission trading schemes (ETS) have been the result, although the process is popularly referred to as 'carbon trading'. This paper considers carbon trading from the perspective of the eCommerce researcher and practitioner. It discusses the nature of the tradable items, and the possible forms of marketplace mechanism in which trading may occur. Both the theory and practice of eCommerce suggest that considerable care will be needed if ETS are to achieve the intended reduction in the global warming effects of industrial technologies.
2009	22nd Bled eConference	Assessment of SOA Potentials in B2B Networks – Concept and Application to German Used Car Distribution Networks	Jan Löhe, Christine Legner	Although service-oriented architecture (SOA) is supposed to increase external integration capabilities, it is mostly applied within company boundaries. How companies should apply SOA to improve their inter-organizational relationships is not, as yet, well understood. Although there are several examples of service-oriented concepts in the B2B context, there has been little research in which the different facets of SOA application are analyzed in inter-organizational relationships and B2B networks. This research aims at filling this gap. First, it identifies SOA potentials from literature and classifies them into a conceptual model for B2B networks. Second, it applies the conceptual model to used car distribution as a real-world scenario. This real-world example demonstrates that a SOA business case is highly situational and that key SOA capabilities need to be mapped to the specific industry context.
2009	22nd Bled eConference	Understanding SOA Perspective of e-Governance in Indian Context: Case Based Study	Harekrishna Misra	Service Oriented Architecture (SOA) is a contemporary phenomenon which is targeted for efficient and inclusive business automation. E-Governance services worldwide are no less than a business paradigm with clearly defined delivery and are creating potential for citizen centric services. Various information technology enabled services are planned for benefiting the support structure (e-government) and interfacing this structure with citizens' demands (e-governance). SOA principles and models are being used for building good e-government systems. Good results of e-government systems notwithstanding, such projects are not free from challenges in many countries. Graduating e-government systems to e-governance systems needs a critical evaluation of citizen participation. In Indian context, this challenge is prevalent because of various issues including digital divides, supply driven approaches of the government systems and inadequate inclusion of developmental perspectives. Various e-governance pilot projects which delivered expected results could not sustain during scale up. This phenomenon provides a scope to appreciate underpinnings of e-governance strategies. In this paper, e-governance systems are given due importance and it is posited that citizen participation with developmental perspectives would lead to better citizen centric services and would also provide scope for demand driven growth of e-governance services. It is also argued that SOA principles adopted with citizen orientation in the value chain would provide this desired result. In Indian context, this issue is relevant as it poses a major challenge for e-governance policy makers to successfully incorporate citizen participation, especially with development perspectives and sustain this participation during scale up. Mapping of SOA oriented components are discussed through two case studies in Indian context to appreciate the issue.

2009	22nd Bled eConference	Constructing a Framework for Investigating and Visualizing ERP Benefits and Business Change	Petra Schubert, Susan P. Williams	Realising business value and identifying the benefits arising from implementations of ERP systems remains a significant challenge for both research and practice. A review of existing work on ERP benefits reveals that current frameworks pay limited attention to contextual and temporal variations; socio-technical and business change; and levels of benefit realisation. This paper presents findings from an ongoing research project to develop a framework for investigating ERP benefits and business change, which addresses the identified limitations of previous research and provides a more detailed analysis of ERP benefits and their contextual variation. Using an iterative content analysis, the preliminary study presented here is based on 15 case studies. The final study will draw on data gathered from more than 60 case study organisations of differing size, maturity and industry sector.
2009	22nd Bled eConference	European criteria for assessing enterprise resource planning (ERP) systems: Preliminary results from multiple empirical studies	Edward W.N. Bernroider, Frantisek Sudzina, Andreja Pucihar	This research report provides preliminary results in terms of ERP system selection criteria across five European Union countries based on empirical studies. The paper provides a structured list of decision making criteria considered in ERP decisions and contrasts weights as well as achievement levels across countries. Research was guided by the Delone & McLean Information Systems (D&M IS) success model supported with views on project and vendor related aspects needed to capture the whole scope of the decision problem. The main considered dimensions were: quality; net benefits; project costs and time; and a vendor dimension. Especially the considered dimensions from the D&M IS success model, namely quality and net benefits varied across countries in terms of their initial weighting and satisfaction levels achieved after ERP implementation. However, a common global notion seems to be that quality and project related criteria are more important to the decision maker than potential benefits on the organisational or individual level.
2009	22nd Bled eConference	Looking Beyond Technology: A Framework for Business Intelligence and Business Process Management Integration	Olivera Marjanovic	While the initiatives for BPM and BI integration are becoming more and more prominent, especially with the raise of operational BI, current integration efforts remain mostly at the technical level. This paper argues that BPM and BI integration should be investigated from a holistic perspective, rather than reduced to technical problems. The paper aims to investigate the integration problem in terms of different types of business processes, the associated types of decisions and the information needs of decision makers. It then proposes a theoretical framework that could be used as a starting point towards an evolving roadmap for BI and BPM integration. The paper also describes an exploratory case study used to confirm the proposed framework.
2009	22nd Bled eConference	A Blueprint for Joint Research between Academia and Industry	Petra Schubert, Julie Fisher	This paper suggests a blueprint for research initiatives between academia and industry. It is meant to stimulate the discussion of the benefits arising from such collaborative work between researchers in universities and practitioners in the field. We show how both rigour and relevance can be ensured in such a collaborative setting. The paper presents a generic model (the CBR Model), developed over eight years and successfully implemented in an existing longitudinal collaboration. The model consists of four different key areas (funding, topic, cooperation, interpretation) as well as three layers relating to time intervals ((yearly, medium term (3 years), long term). The model is designed to provide researchers with a guideline for setting up similar collaborative arrangements between researchers and industry partners.
2009	22nd Bled eConference	Challenges in Explaining Structure and Evolution of Inter-organisational Information Systems: Lessons from an Empirical Research Journey	Kai Reimers, Robert B. Johnston, Stefan Klein	We have recently undertaken a five year international comparative study of Inter-organizational Information Systems (IOIS) in the pharmaceutical supply chain in four countries, with the initial aim of investigating the relationship between differences at the industry and national level and the structure of the IOIS in these countries. We found because of the large timescale (beyond individual projects) and the large scope of analysis (including firm, industry and national factors) that a new phenomenon of IOIS evolution came into our view. This paper presents the journey we have taken in re-evaluating appropriate theoretical underpinnings for studying and explaining IOIS phenomena at this large scale. We present our insights by relating the series of revisions we were forced by the phenomena to make to our research model, illustrated with two case vignettes.

2009	22nd Bled eConference	Assessing Strategic Alignment to Improve IT Effectiveness	Martin Smits, Alea Fairchild, Piet Ribbers, Koen Milis, Erik van Geel	A long running challenge in both large and small organizations has been aligning information systems services with business needs. Good alignment is assumed to lead to good business results, but there is a need for good instruments to assess strategic alignment and business success in practice. Based on existing information management theories, we develop the I-Fit model and the I-Fit tool. The model assumes causal relationships between four main areas: 'IT governance', 'Strategic Alignment', 'Information Quality', and 'Business Performance'. The tool consists of 40 questions that are used to quick scan alignment. We apply the iFit tool in nine organizations in the Netherlands in order to validate the instrument. Further steps of the project are discussed, including tools for drilling down into the four main areas with greater depth.
2009	22nd Bled eConference	Towards a Toolset for Intranet Evaluation	Peter O'Boyle, Thomas Acton, Michael Campion, Kieran Conboy, Murray Scott	Usability is an important component of information systems acceptance. Independent consultants in the assessment of organisational intranets often perform heuristic appraisal, a common method of usability evaluation. However, there are alternative usability models that offer valuable analysis in the evaluation process. Using a government organisation's intranet as a case study, this paper assesses the value of an independent heuristic-based intranet audit by providing a comparable approach to assessment realisable internally in the organisation using questionnaires. Using a single case study, we empirically apply the Technology Acceptance Model (TAM), together with some heuristic aspects, to provide an alternative tool for intranet usability and acceptance. We provide insight into the usability impact of intranet design changes, and compare the findings of an external usability audit with the approach outlined. An overall toolset for intranet evaluation is proposed as an initial step for further exploration and potential use.
2009	22nd Bled eConference	An Empirical Study of the Current State of B2B Integration in Practice	Norbert Frick, Petra Schubert	With the ongoing process of building business networks in today's economy, business-to-business integration (B2B Integration) has become a strategic tool for utilizing and optimizing information exchange between business partners. Industry and academia have made remarkable progress in implementing and conceptualizing different kinds of electronic intercompany relationships in the last years. Nevertheless, academic findings generally focus exclusively on certain aspects of the research object, e.g. document standards, process integration or other descriptive criteria. Without a common framework these results stay unrelated and their mutual impact on each other remains largely unexplained. In this paper we explore the current state of B2B in practice. In a research project using a uniform taxonomy (eXperience methodology) we classified real-world B2B integration projects from a pool of over 400 case studies using a pre-developed framework for integration scenarios. The result of our explorative research revealed typical patterns in companies' position in the supply chain and industry sector and the use of the integration scenarios.
2009	22nd Bled eConference	Towards a Validated Construct for Information Systems Pervasiveness: An Exploratory Assessment	Dimitrios C. Karaikos, Panos Kourouthanassis, George M. Giaglis	The proliferation of pervasive information systems' research has motivated a gradual technological shift away from the desktop computing paradigm towards more ubiquitous forms of information systems presence and use. This progression towards pervasive IS is accompanied by an implication that there exist clear and unambiguous boundaries between pervasive and non-pervasive information systems. This study poses that this implied dichotomy is not an accurate reflection of reality and proposes a more accurate conceptualization of pervasiveness through developing its construct. In particular, it adopts the methodological approach of construct development and reports the results from two of the three phases, i.e. definition of construct's domain and instrument development. A preliminary instrument was developed through literature analysis and then was assessed for its content validity through a survey of experts (N=33). Experts recognized ubiquity and context awareness as the two determinant characteristics of pervasiveness while diffusion was perceived as the ultimate goal of a pervasive IS and not as a technology characteristic. The final pervasiveness instrument can be exploited by information systems researchers aiming to enrich their own theoretical propositions by taking into account how pervasiveness influences things like technology acceptance and usability evaluation.
2009	22nd Bled eConference	Business Model Adaptation as a Dynamic Capability: A Theoretical Lens for Observing Practitioner Behaviour	Antonio Gabriele Dottore	The paper adopts the dynamic capabilities framework as a theoretical lens for observing business model adaptation by practitioners. It explicates how very recent contributions to dynamic capability theory have made the connection clearer. It is part of a larger program aimed at understanding the forces that affect business model adaptation and innovation in technology-based firms. The very rare previous research has been mostly theory based, focused on eBusiness, or focused at the industry level. This study is seeking a theoretical base for making sense of practitioner behaviour, in studying the process of adaptation and innovation. The theoretical base needs further development and will likely be augmented or altered as patterns are discerned from the field studies, as well as through other extant theories. Contributions will be not only to business model research, but also to the fields of entrepreneurship, commercialisation and strategic management.

2009	22nd Bled eConference	Modelling the Effects of Decision Tools in Online Shopping	Ultan Sharkey, Thomas Acton, Kieran Conboy	The provision of tools to focus user interaction in analysing data to come to a decision is the core principle of a decision supporting system. This became the inherent characteristic of decision support systems to counter the cognitive overload issues associated with management information systems arising from their proficiency in gathering and collating into larger and larger reports. A similar issue arises in online shopping systems where increased catalogues become less useful without an ability to use that data to decide upon a purchase. With this in mind we argue that it is necessary now to investigate the optimum decision support tools which may be provided in online shopping systems in order to clarify for the management of these systems how best to help customers analyse and synthesise product data to form a purchase decision. In this paper we propose to investigate the methods of supporting the consumer decision by experiment and survey manipulating the methods of decision support provided and measuring the effects on the consumer decision process. This research in progress outlines the extant theories of consumer decision formation, appropriateness of strategies and the validity of supporting particular strategies. We submit that particular analyses methods should be employed and outline a laboratory experiment which we have designed to test the hypotheses formed.
2009	22nd Bled eConference	A Longitudinal Study of the Use of the Web by Regional Tourism Organisations (RTOs) in Australia	Lois Burgess, Belinda Parrish, Joan Cooper, Carole Alcock	The information-intensive nature of the tourism and travel industry suggests an important role for Web technology in the promotion and marketing of tourist destinations. The rapid development of the Internet is also having profound impacts on the industry. In fact, travel and tourism has become the single largest category of products sold over the Internet (Tourism White Paper, 2007). With reports of travel purchases and reservations being one of the fastest growing segments of the Internet community it is no surprise that the number of tourism operators on the Web has increased considerably over the past few years. This paper presents the results of a study of the use of Web technologies by Regional Tourism Organisations (RTOs) in the Australian tourism industry over an eight year period from 2000 to 2008. The Extended Model of Internet Commerce Adoption (eMICA) (Burgess and Cooper, 2000) was used to assess the web sites of RTOs to determine the extent of adoption of web technologies for destination marketing. A significant finding of this study is the number of RTOs sites offering Stage 3 functionality (transaction processing). The results of the study add further support to the premise of the model, that is, in developing commercial websites, businesses in this industry sector typically start simply by establishing a presence on the Web and build on functionality over time, as their experience and expertise in the use of Internet technologies increases.
2009	22nd Bled eConference	Information Systems – Unavoidable Nuisances in Combining Local Administratives?	Raija Halonen, Hannu Haapala, Thomas Acton, Kieran Conboy, Willie Golden	Local administratives face challenges similar to enterprises due to changes in their environment. Municipalities need to join their resources to reimburse and to deliver services. However, municipalities have not received much attention regarding ICT related integration, especially in cases when multiple municipalities are combined. Despite the central role of information systems in government services, ICT is often left without prior contemplation when making plans to integrate municipalities. Therefore, this paper addresses the role of information systems in municipality integration. In so doing, the study uses a framework described in prior literature: using this framework, the paper describes particular municipality integration and discusses IS-related factors in the implementation of integration.
2009	22nd Bled eConference	Value Assessment of Business-to-Government Innovations: a Case Study	Marta Raus	This article studies value assessments of IT solutions in public as well as in private contexts and aims to identify benefits of business-to-government innovations. The work analyzes the case of the implementation of European common e-customs solutions. Over the last few years, e-customs has become a widely studied topic within the European Union. However, only a little research has been conducted in order to identify benefits of such IT innovations. For this reason, this paper is dedicated to the value assessment of e-customs solutions. Within the framework of a European funded project, the study was conducted collecting data from interviews and workshops involving stakeholders coming from public as well as private organizations. By applying a theoretical value assessment framework, four main areas of improvement due to common e-customs solutions' implementation were identified: increased security, reduction of administrative burden, facilitated compliance, and better communication. This article contributes towards value assessment research and in particular to a standardized e-customs solution as an example of business-to-government innovations.

2009	22nd Bled eConference	The Role of Redress in B2C E-Business	Chin Eang Ong, Mohini Singh	Redress is an important customer support mechanism in B2C e-business to win customer confidence in online purchases. Although some form of redress has been considered in different parts of the world, it is still at an inception stage regarding its application to B2C e-business. This paper introduces redress and provides an explanation of themes related to redress in B2C e-business identified from a review of literature. The focus of this paper is on the role of redress in B2C e-business; allowing consumers access redress, and how redress an important aspect of customer relationship management as well as trust in B2C e-business. The paper highlights the need for research on redress in B2C e-business.
2009	22nd Bled eConference	Organisational Change in the Third Sector and Implications for Organisational Networks	Nicole L. Howard, Paul A. Swatman	This paper reports an action research study in which we explore the problems of organisational change within a large non-profit organisation – a so-called “third sector” – organisation. We focus on the mutual interaction of an organisational change initiative and the motivation of the workforce. We review the nature of the social service delivery sector, of which the focal organisation is a part, and develop, in the context of this study, an analogy with the class of systems described as organisational networks. We argue that the findings from this study may be expected to have application in organisational change within organisational networks, generally.
2009	22nd Bled eConference	Towards an e-Service Knowledge System for Improving the Quality and Adoption of e-Services	Boštjan Šumak, Gregor Polančič, Marjan Heričko	The purpose of this article is to highlight the limitations and drawbacks of existing knowledge about e-service quality and e-service user acceptance. To overcome these limitations we will propose some solutions. An extensive review of relevant literature has shown that a lot of research has already been conducted in this field. However, there is still a gap between the percentage of existing e-services and the percentage of those that are actually being used. We believe that existing knowledge could be better used by e-service researchers and especially by e-service providers, if they would have a knowledge system that would be capable of synthesizing the existing knowledge and presenting it in a more people-friendly format. The practical outcome of this article is a proposal for an e-service knowledge system, which could be used to improve the quality and user acceptance of e-services.
2009	22nd Bled eConference	Designing and Testing Service Experiences (Mobile, Web, Public Displays) for Airport Transit	Richard A. John, Luuk P.A. Simons, Harry Bouwman	The importance is growing of user experience as part of service design to enhance competitive differentiation for companies. In conceptual and practical terms, it is challenging to design service experiences and measure differences in the utility value of service experiences. Our research question is: What is the best way to design and test user experiences of services? We extracted seven service experience factors from literature. For the case under study, an airport transit service, we used Kansei Engineering to design various user experience scenarios. Via four pre-test iterations, we selected three promising factors for service experience differentiation, as well as five target variables to assess experiential utility. We tested user experience based on an orthogonal conjoint analysis (n=123). The main finding is that using the factors from literature as design inputs within an overall Kansei Engineering approach is practically feasible and results in distinctly different user experiences. With regard to the airport case for example, emotional service clues were found to contribute strongly to ‘feeling valued’ and customer participation was found to enhance comfort.
2009	22nd Bled eConference	Exploring inter-organizational alignment with e3alignment – An Aviation Case	Vincent Pijpers, Jaap Gordijn, Hans Akkermans	In this paper we present the e3alignment framework and approach, which we use to explore a wide range of inter-organizational alignment issues concerning the interaction between organizations in a value web, as seen from multiple perspectives, and with the aid of modeling techniques. The e3alignment approach focuses on interaction between actors, since “interaction” is one of the key success factors for a sustainable value web. Our ultimate goal is to create a sustainable value web, where various organizations cooperate to successfully meet a consumer need. To support our claims we conducted an industrial strength case study at the Dutch aviation sector.

2009	22nd Bled eConference	Increasing the Loyalty Effects of eCRM across the Service Delivery Cycle	Luuk P.A. Simons, Joleen van Loon, Nicole M. de Koning, Janneke Kruse, Harry Bouwman	eCRM increasingly supports all agents and customers in their mutual contacts. To generate returns on eCRM investments, providers use loyalty as a profit driver. However, little is known about the 'service elements' that can be used to improve customer loyalty. Especially for ICT (Information- and Communication Technology) service providers, loyalty is an important business metric. Moreover, the sector is characterised by specific service challenges (delivery and installation, billing, problem resolution). The main research question of this paper is: which service elements may help improve the loyalty of customers of ICT-providers, as part of a centralized eCRM approach? A survey (n=401) was conducted among Dutch consumers, evaluating 54 service elements. It was found that (1) some service elements which are regularly used (including loyalty points and customer communities) are not viewed by customers as loyalty-enhancing elements, (2) several SERVQUAL-related items are considered to be conditional in nature meeting minimal requirements and (3) the main service elements that help build loyalty are those that are offer recognizable benefits to customers (i.e. proactively recommending a cheaper option, or taking problems completely out of a customer's hands) rather than those that favor providers (i.e. rewards for bringing in other customers). We found that customer preferences vary according to their attitudes towards ICT and churn. The results indicate that consumers can be divided into four loyalty types ('hoppers', 'careful scanners', 'comfort loyalists' and 'risk averse loyalists'), which can be identified using three questions. The use of these loyalty types can help make eCRM interactions and management more effective.
2010	23rd Bled eConference	Tweet Inside: Microblogging in a Corporate Context	Kai Riemer, Alexander Richter	With the advent of Twitter, Microblogging has become increasingly popular. The service is simple, easy to use and its success has company executives wondering if using the short message service in their Intranets would benefit organisational information sharing and communication. At the same time, others have cautioned against transferring social media inside the corporation as this might lead to importing unwanted procrastination behaviours. Against this backdrop, our case study explores communication patterns in a team that has adopted Enterprise Microblogging. By applying genre analysis, find that microblogging in this corporate context is vastly different to its public equivalent. We discuss our findings in light of contextual differences and the open nature of communication platforms, which impact in user appropriation. Moreover, we argue that decision makers should vest trust in their employees in putting microblogging to productive use in their group work environments.
2010	23rd Bled eConference	Social network influences on technology acceptance: A matter of tie strength, centrality and density	Stephan ten Kate, Sophie Haverkamp, Fariha Mahmood, Frans Feldberg	This study examines social network influences on the individual technology acceptance. Since it is believed that individuals' trust, opinions and behavior are influenced by their network, an analysis of that network may help to provide some explanations on technology acceptance. However, since social network characteristics are group-level characteristics and the technology acceptance model (TAM) is grounded on an individual level, there is a need for a mediating variable that links group-level characteristics to individual-level characteristics. According to this research the subjective norm construct, as introduced in TAM2, can be used in this mediating, linking role. This research proposes three social network characteristics (tie strength, density and centrality) and examines their influence on the subjective norm construct. As a result, this research not only extends TAM with a social perspective by introducing three antecedents of subjective norm, but also reduces the potential tension that exists between models explaining behavior at the individual level (TAM) and models that explain behavior at the group level (social network). Theoretical and managerial implications derived from the model developed are also discussed.
2010	23rd Bled eConference	Social Transactions on Social Network Sites: Can Transaction Cost Theory Contribute to a Better Understanding of Internet Social Networking?	Daniel Richter, Kai Riemer, Jan vom Brocke	Social Network Sites (SNSs) are a success story by example. User counts as well as page visits have rocketed in recent years. In this paper we propose to utilize Transaction Cost Theory (TCT) and Social Capital Theory (SCT) to make sense of what kind of social interaction is executed on SNSs and why. In doing so we will show how TCT can be applied to SNSs by proposing to include in the theory the construct of social transactions. We will describe the characteristics of social transactions on SNSs as being concerned with the management of Social Capital. We will then determine which social transactions are attracted by SNSs. Finally, we discuss how research in the field of Internet Social Networking can benefit from this conceptualisation of social transactions and spell out practical implications.

2010	23rd Bled eConference	Trust, Social Presence and Customer Loyalty in Social Virtual Worlds	Matti Mäntymäki, Jari Salo	Social virtual worlds (SVWs) have drawn substantial attention in business and academia. This research focuses on how trust affects customer loyalty in the SVW setting. Specifically, this study pinpoints how trust in SVW staff and other users influences the continuous use and purchase behaviour in SVWs. Additionally, we examine the influence of social presence on the two aspects trust and customer loyalty. The research model is tested with PLS using a sample of 2111 Finnish Habbo users. The two facets of trust are important antecedents on customer loyalty, yet differing in their effect. Social presence is a strong determinant of trust but also a direct antecedent of customer loyalty. Together, trust and social presence account for a considerable amount of variance in continuous use and purchase intention.
2010	23rd Bled eConference	Towards a Formative Measurement Model for Trust	Matthias Söllner, Axel Hoffmann, Eike Maximilian Hirdes, Liudmila Rudakova, Stefanie Leimeister, Jan Marco Leimeister	IS research has shown the importance of trust in domains such as e-commerce or technology acceptance. Researchers also emphasize the importance of the identification of factors that influence trust. Unfortunately, the currently dominant reflective measurement does not offer these insights, and thus this contribution aims at developing a formative measurement model for trust. To achieve this, we address three research questions: a) How can trust be measured, considering trust and measurement theory? b) What indicators should be included in a formative measurement model for trust? c) What is the value of a formative measurement of trust compared to a reflective one? Our results show that the formative measurement model offers detailed insights on the impact of single factors influencing trust. We show that in our study, ability affects trust over twice as much other factors such as benevolence or trustor's propensity.
2010	23rd Bled eConference	Measuring eTrust in Distributed Systems: General Concept and Application to Internet Voting	Guido Schryen, Melanie Volkamer	Emerging digital environments and infrastructures, such as distributed services and computing services, have generated new options of communication, information sharing, and resource utilization in past years. Different distributed trust concepts are applied to increase trust in such systems. However, these concepts yield to rather complex architectures which make it difficult to determine which component or system needs to be trusted. This paper presents a novel trust measurement method for distributed systems which enables the identification of weak points in the overall system architecture. The measurement method includes the specification of a formal trust language and its representation by means of propositional logic formulas. The applicability of the proposed concepts is demonstrated by conducting a case study on the Internet voting system that was used in the 2007 parliamentary elections in Estonia.
2010	23rd Bled eConference	User Adoption of Cell Phones for Smoking Cessation: Does Attitude Towards Smoking Matter?	Mihail Cocosila	The objective of this study is to investigate the role of attitude towards the activity targeted by the technology in a perceived risk-motivation information technology adoption model. A theoretical model was developed and tested empirically with 170 respondents from the UK for the case of using cell phones in smoking cessation interventions. Results show attitude towards smoking had a negative effect on the perceived risk and no significant effect on motivation.
2010	23rd Bled eConference	Exploring e/mHealth Potential for Health Improvement: A Design Analysis for Future e/mHealth Impact	Luuk P.A. Simons, J. Felix Hampe	Our aging population presents a huge challenge especially to our Western (public) health care systems and costs. Recent developments in the area of e/mHealth solutions hold some promise, especially if they are used in lifestyle interventions for several of the main Western diseases. We raise the question how e/mHealth solutions can help improve health by supporting lifestyle interventions? By using a design analysis approach and based on medical literature on health interventions, we raise a number of questions, which span the problem space: Which types of lifestyle interventions are more or less effective in generating health improvements? Which contents and formats of lifestyle interventions hold promise? What could e/mHealth care solutions contribute? System Quality and Information Quality issues are illustrated by using cases. Finally, in the discussion we briefly address the integration with traditional health care provisioning. Regarding the support of health (self-)management, we argue that specific e/mHealth care approaches could offer solutions for current system quality and information quality challenges. These solutions can in turn offer opportunities for care providers to improve the success of their patient recovery programs, and for patients to improve their health significantly. We provide a list of examples for such support provided by e/mHealth care approaches, e.g. integration with the increasing range of health applications in everyday life (on iPhone, Wii, Google, Nike+ and others). A significant number of patients want to actively contribute to improve their health and fight their disease, if they see that it makes a difference. A growing range of e- and m-Health applications is helping them do so.



2010	23rd Bled eConference	The Implementation of Electronic Health Records Initial Findings from Ngaanyatjarra Lands	Helen Cripps, Craig Standing	Information and communication technologies (ICT) are now part of the fabric of the global economy, however the adoption of ICT in the health sector has been significantly slower. The traditional drivers of adoption in the business sector are not always present in the health sector and there are a number of systemic inhibitors that make the adoption of ICT far more complex. This paper examines strategies that can be used to manage these complexities using a case study of a successful implementation of electronic health records in remote Western Australia. The desire for improved health outcomes by those involved overcame bureaucratic, technical and cultural barriers to the effective ICT adoption and use.
2010	23rd Bled eConference	Equine Vaccination, a Paper Mess Waiting to get Solved. Could ICT be the Answer?	Sonja Leskinen	Equine sports have long traditions, and is part of the Olympic disciplines. Yet even if the rest of the sports events have welcomed the 21st century and ICT, equine sports are yet to fully embrace the values and help ICT may bring to this noble sport. Horses need to get influenza vaccinations according to regulations, yet the way to register a horse's vaccination and checking that vaccinations are in order is done in a very old-fashioned way, basically manually. The research addresses the question how IS and mobile technology could help the various bodies involved in the equine sports to perform their duties with more ease and precision. In this paper the research topic is what competition riders and horse owners are prepared to divulge of their horses vaccination information.
2010	23rd Bled eConference	Improving Manpower Planning in Health Care	Martin Smits, Victor Slenter, Jac Geurts	In many countries manpower problems in the field of health care are regular items on the agenda of policy makers. To avoid mismatches between demand of care and supply of care on national and regional levels, manpower planning models and methods are used to determine adequate numbers of medical specialists to fulfil the future demand of care. A key question is which factors should be included in long term (25 years) forecasting and how these factors should be included in a planning model and method. In this paper we evaluate the model and the method for medical manpower planning that has been used since 2000 in the Netherlands. To improve accuracy and relevance of the model, we conclude that system dynamics modelling should be used and that strict distinction should be made between factors influencing the demand for care and factors influencing the supply of care.
2010	23rd Bled eConference	User Adoption of IPTV: A Research Model	Sandra Weniger	The development of Internet Protocol Television (IPTV) is accelerating globally and provides significant revenue opportunities depending on user adoption. Hence, user adoption of IPTV constitutes a field of interest for IPTV providers. This paper extends prior research by proposing a research model for studying the driving forces of users' adoption of IPTV. Examining IPTV as a hedonic IT system, this paper stresses the importance of users' perception of IPTV-specific factors as well as enjoyment for the adoption process, and incorporates a direct link between buying related aspects preceding the intention to use.
2010	23rd Bled eConference	Website Usability for Internet Banking	Roman Zollet, Andrea Back	Internet users can fail at several hurdles, e.g. issues related to trouble-free and selfexplanatory interaction. Not only users but also organizations are affected adversely by these difficulties. The purpose of this study is to enhance the limited repertoire of methods for quantifying web applications usability, which have remained unchanged for years. It first develops a model explaining the relationship between usability dimensions and success variables. Consecutively, the model's hypotheses are empirically validated by conducting an experiment for testing Internet Banking applications. Results show positive usability effects of increased recognizability, real world metaphors, anticipating support, dominant designs and a higher degree of freedom through the undo button. For practitioners, this research offers a quantitative method for development and quality management projects. Its scientific contribution consists of adding a novel approach for usability measurement in the field of Usability Engineering. It provides findings about the relationship between usability dimensions and usability success factors which presents a basis for further research in this field.
2010	23rd Bled eConference	Sharing and Caring: The Giving and Receiving of Information in Online Chronic Disease Communities	Rosemary Stockdale, Craig Standing, Susan Standing	Online chronic disease communities are part of a healthcare phenomenon that empowers people to self-manage their condition. This paper discusses the growth and structure of such communities to identify the ways in which the sharing of information contributes to improved health outcomes. We draw together findings to offer a research agenda that will inform further studies in this complex area.

2010	23rd Bled eConference	SEMPER: A Web-Based Support System for Patient Self-Management	Edith Maier; Ulrich Reimer, Sissel Guttormsen Schär, Philippe G. Zimmermann	The paper discusses an eHealth project which is currently developing an interactive web-based platform that assists patients to self-manage work-related disorders and alcoholism. The focus is on motivating long-term behaviour change. This is supported by an online assessment component based on the technique of motivational interviewing and a feedback component which visualizes actual behaviour in relation to intended behaviour. Disease-specific information is provided through an information portal that utilizes lightweight ontologies (associative networks) in combination with text mining. Emotional support is provided via virtual communities. The paper discusses the design rationales underlying the approach taken and outlines some implementational aspects. The paper also briefly outlines how the effectiveness of the self-management tool will be measured based on an outcome model particularly suited for health promotion.
2010	23rd Bled eConference	DiaMonD: Developing a Diabetes Monitoring Device in the Australian Context	Nilmini Wickramasinghe, Indrit Troshani, Steve Goldberg	Diabetes is one of the leading chronic diseases affecting Australians and its prevalence continues to rise. Diabetes is therefore becoming a serious challenge for both the quality of healthcare and expenditure in the Australian healthcare system. The goal of this study is to investigate the development and application of DiaMonD – a diabetes monitoring device. Powered by pervasive technology software developed by INET, DiaMonD is a wireless enabled mobile phone that can facilitate superior diabetes selfmanagement. The development and application of DiaMonD using the Adaptive Mapping to Realisation methodology (AMR) methodology is examined in addition to an appraisal of key adoption facilitators and barriers in the Australian setting.
2010	23rd Bled eConference	Managing Information Risks and Protecting Information Assets in a Web 2.0 era	Catherine A. Hardy, Susan P. Williams	The growth in volume of digital information arising from business activities presents organisations with the increasingly difficult challenge of protecting their information assets. Failure to protect such information opens up a range of new business risks. The increase in externally hosted services and social networking tools also adds a new layer of complication to achieving information protection. Prior research has recognised the need for a socio-organisational view of information protection, shifting the emphasis from a narrowly defined technical concern to an enterprise-wide, business-led responsibility encompassing strategic and governance issues. We argue that this shift is important but not enough and that greater attention should be given to understanding the nature and complexities of digital business information. In this paper we examine the extent to which existing frameworks for information protection are structured to account for changes in the information environment. Our findings indicate that whilst these frameworks address the need to adopt a broader social and organisational perspective there remain a number of significant limitations in terms of the way the information is treated. To address these limitations we propose a more co-ordinated and information-centric approach to information protection.
2010	23rd Bled eConference	Factors Affecting SMEs' Willingness to Share Knowledge Online: A Path Model	Rodney Carr, Tanya Castleman, Cecily Mason, Craig Parker	This paper presents the findings of a study of SME owner-managers that examined their willingness to share information online with other members of a local business network. The main variables associated with willingness to share knowledge online were found to be willingness to share information in conventional modes and the intensity with which they used the internet for business activities. A number of other variables were found to be indirectly or unrelated to willingness to share knowledge online. A significant locality effect was also identified which suggests that the social context of the network to which the business belonged influences willingness to share knowledge online. Our work supports previous research which concludes that online knowledge sharing initiatives should enhance relationships within the business network itself as well as the technical aspects of the networking platform and the technical competence of potential users.
2010	23rd Bled eConference	Knowledge Mobilisation for Knowledge Whenever and Wherever Needed	Christer Calsson, Matteo Brunelli, Jozsef Mezei	Knowledge mobilisation is a transition from the prevailing knowledge management technology to some innovative methods for knowledge representation, formation and development and for knowledge retrieval and distribution. Knowledge mobilisation also carries the connotation on "knowledge on mobile phones" and this is actually one of the platforms that will be used. Fuzzy ontology replaces classical ontology for knowledge representation. We will show that fuzzy ontology is useful to represent real world knowledge and to give us answers which are sufficiently good for real world situations for which we need sufficiently good knowledge. We demonstrate the knowledge mobilisation approach by showing how amateurs can become wine connoisseurs with support from the technology.

2010	23rd Bled eConference	Road Safety 2.0: Insights and Implications for Government	Dieter Fink	This research provides insights to government into the potential of web 2.0 as a mechanism to engage with the public on issues concerning road safety. It uses the Transtheoretical Model of Change (TTM) to bring about citizen engagement. An important first step in TTM was to establish young people's 'contemplation' of engaging with government via web 2.0 by determining their abilities and expectations. Reasonably high levels of abilities with web 2.0 tools as well as expectations for Road Safety 2.0 applications were found, thus encouraging government to pursue the potential of web 2.0. Expectations were highest for information management followed by data management and citizen engagement. The next stage of TTM will see the public becoming 'active' in their engagement with government. This imposes significant challenges for Road Safety 2.0. Externally, government has to adapt to the attention economy by acquiring 'eye-ball time' for road safety and an increasingly reflexive society that reacts to events on the basis of their own choosing. Internally, government systems have to be transformed to reflect an organisational architecture of participation to enable open and transparent collaboration with citizens.
2010	23rd Bled eConference	Exploring the Public Value of e-Government: An Empirical Study from Sri Lanka	Kanishka Karunasena, Hepu Deng	E-government has become popular in Sri Lanka with the implementation of various e-government initiatives. The public value of these e-government initiatives, however, is not clear due to a lack of rigorous assessment so far on the performance of such e-government initiatives. This paper presents an empirical study in evaluating the public value of e-government in Sri Lanka within a conceptual framework developed based on a comprehensive review of existing literature. The study shows that the public value of e-government in Sri Lanka is far from satisfactory exemplified by the lack of e-transaction services and the low uptake of available e-government initiatives.
2010	23rd Bled eConference	The Role of Trust in Government Control of Businesses	Brigitte Burgemeestre, Joris Hulstijn, Yao-Hua Tan	Governments have the responsibility to control whether businesses are compliant with regulations in various areas such as health, safety, security, tax and customs. Traditionally, this control is exercised in a command-and-control fashion: businesses provide data to the control agencies, and in addition these agencies perform inspections of the businesses. To reduce administrative burden, governments are investigating 'horizontal' governance models, built on the responsibility and participation of companies. The information needs of both companies and agencies are changing and trust is now playing a more prominent role. Appropriate information management, supported by IT systems helps the trust relation to evolve. The model of transitional stages of trust (Lewicki and Bunker) identifies information needs per trust level. In this paper we link 'horizontal' governance strategies with the trust levels of Lewicki and Bunker to identify information needs. Information needs determine requirements for enterprise information systems and eGovernment applications. We define hypotheses about the trust levels and information needs of 'horizontal' governance strategies. The hypotheses are evaluated in a case study of the system-based control approach of Dutch Tax and Customs Administration. We find that system-based control corresponds to knowledge-based trust, and that the information which must be gathered corresponds with both calculus-based and knowledge-based trust.
2010	23rd Bled eConference	Implications of Consumer Information Behaviour to Construct Utility-based Recommender Systems: A Prototypical Study	Michael Scholz	Product recommender systems aim to support consumers in making buying decisions. However, such a support requires considering the consumer behaviour in making buying decisions. In this paper, we deduce design requirements for utility-based recommender systems from the theory of consumer information behaviour and present empirically findings from experiments conducted with a prototypical implementation of the proposed requirements. The empirical examination shows that our recommender system has a high predictive validity.
2010	23rd Bled eConference	The Effectiveness of Electronic Word-of-Mouth Communication: A Literature Analysis	Christy M.K. Cheung, Dimple R. Thadani	Electronic word-of-mouth (eWOM) communication has been one of the most exciting research areas of inquiry. There is an emerging attention on the effectiveness of eWOM communication. The scope of published studies on the impact of eWOM communication is rather broad and the studies appear relatively fragmented and inconclusive. In this study, we focused on the individual-level eWOM research. We conducted a systematic review of eWOM research and identified key factors that are specific to the context of eWOM communication. We believe that this literature analysis not only provides us with an overview of the current status of knowledge within the domain of eWOM communication, but also serves as a salient guideline for future research directions.

2010	23rd Bled eConference	Are Customer Service Offerings Influencing E-Loyalty? A Graphical Chain Model Approach in the Austrian Mobile Phone Service Provider Industry	Barbara Krumay, Roman Brandtweiner	Customer loyalty is seen as one of the key factors of a company's success. According to current research results, a necessary premise among others to gain customer loyalty is how the customers perceive the customer service. In the field of B2C e-commerce online customer support areas are used to fulfill parts of this support duty. It is an open question how big the impact of the online customer support on the customer loyalty is. The goal of this paper is to determine, which factors are influencing e-loyalty significantly. Two factors are used to measure loyalty: positive word-of-mouth and switching probability. In the first part a brief overview of the actual scientific work and recent research results are given. After this, the methods and data acquiring steps are described. The results of the so gained data are presented and interpreted. Based on these results, the conclusion and further research recommendations complete this work.
2010	23rd Bled eConference	Chain Digitisation Maturity and Its Determinants: A Dutch CIO Survey and Case Study	Marijn G.A. Plomp, Ron C.M. van Rooij, Ronald S. Batenburg	Interorganisational or chain information systems have become a frequent subject of scientific research, but not often an empirical perspective on these systems is taken. In this study we develop a model for measuring the chain digitisation maturity of organisations and validate it by conducting a survey among 33 CIOs. In addition, one of the responses is further investigated through a case study. Based on the survey data, three determinants, namely (i) complexity of chain digitisation solutions, (ii) synchronisation of data and (iii) the size of the organisation, appear to be correlated with chain digitisation maturity. This is confirmed by the case study, which also provides a deeper understanding of alignment of technology and organisation on the one hand, and the supply and demand chain partners on the other. We conclude that the topic of chain digitisation alignment deserves further research, as does its situationality for profit and non-profit organisations.
2010	23rd Bled eConference	Professional Associations, Power and the Building of Electronic Prescription Systems	Joan Rodon, Jordi Trullén, Feliciano Sesé	In this paper we pull together an analysis of power with an analysis of the agency of a Professional Association of Pharmacists in the building of an electronic prescription (EP) system. We frame our analysis of the building process of an EP system in terms of power from the perspective of the pharmacists collective, and particularly, from the perspective of the Catalan Professional Association of Pharmacists (CPAP). What concerns us in this paper is the role of the CPAP in structuring the field of other's action –namely, community pharmacies which are members of the CPAP and the Catalan Health Service– during the building process. From this perspective, we study power not only in the CPAP's capacity to influence others through the control of resources that others need, but also in the field of relations that characterize a power arena and in the effect of the ordering work performed by the CPAP. By examining the case from the lens of the circuits of power we identify two kinds of interventions from the CPAP –conservative and transformative–, and distinguish them based on the circuit of power they active and the use of IT they make.
2010	23rd Bled eConference	Concepts for Command & Control Effectiveness in German Disaster Response	Sebastian Richter, Erich Heumüller, Ulrike Lechner	The paper analyzes relevant concepts for command & control effectiveness in the German disaster response system. The concepts are derived from legal text review, an analogy between military and disaster response domain and interpretations of representatives from major German disaster response organizations. The concepts are integrated into a conceptual model.
2010	23rd Bled eConference	An Adaptive User Interface Framework for eHealth Services based on UIML	Joël Vogt, Andreas Meier	New sensory technologies and smaller, more capable mobile devices open opportunities for pervasive computing in the healthcare sector. Patients as well as medical professionals are, from a information and communication technology (ICT) point of view, better equipped than ever before. Despite this, many hospitals and other healthcare service providers have yet to exploit the potential unleashed by these technologies. In this paper, we present a framework for adaptive user interfaces for home care and smart hospital services. The framework uses the current context to provide healthcare professionals or patients with simpler, more efficient user interfaces. In a home care environment, user interface adaption is needed to tailor user interfaces to patients needs and impairments. In a smart hospital, user interface adaption considers medical professionals' preferences and priorities. In addition, by using context to make input suggestions simplifies the input and limits the scope for errors. Our frameworks uses a modelbased approach and includes the current context in the interface generation process.

2010	23rd Bled eConference	Service Experience Design for Healthy Living Support: Comparing an In-House with an eHealth Solution	Luuk P.A. Simons, J. Felix Hampe	Extensive lifestyle interventions towards healthy living can help prevent, stabilize or even reverse some of the most common diseases facing our aging population (cardiovascular diseases, diabetes, obesity, some cancers and even dementia). One promising application can be found in 'secondary prevention', which starts from the moment of diagnosis and is aimed at prevention or reversal of disease progression. Several studies have shown that patients who make the largest lifestyle progress gain most (long term) health benefits. An important challenge is to motivate patients to a high degree of compliance with the lifestyle guidelines. In this paper we use principles from Service Experience Design and motivation theories for designing and evaluating (e)Health lifestyle interventions. A two-tier design approach is most sensible: First use generic motivational factors (like cognition/health insights, asking explicit commitments or generating fast results). Next use service experience factors to optimize details. The eHealth solution generates quite different experience benefits compared with the inhouse solution. On the one hand this indicates that they may be used to serve different patient segments. On the other hand, our analysis suggests ways in which in-house and eHealth elements may be combined. We argue, that the level of trust a patient gains in prevention or therapy programs can be increased substantially by this combination. Some innovative examples for ICT-based eHealth approaches are mentioned for illustration.
2010	23rd Bled eConference	Improving Health Outcomes for the Elderly: An Analytic Framework	Elaine Lawrence, Christian Sax, Karla Felix Navarro	The authors present an analytic framework for investigating interactive gaming technologies and integrating a number of such technologies into a remote healthcare monitoring system (ReMoteCare) to help improve the quality of life of the elderly, the chronically unwell and infirm whether they are living in their own homes or in aged care facilities. The framework covers population characteristics of the cohort, the interactive technologies as well as economic and environmental factors. It is anticipated that a series of interactive exercises, developed in conjunction with a Feldenkrais movement therapist who specializes in exercises for the elderly, will help to improve the physical and mental health outcomes of this cohort.
2010	23rd Bled eConference	The Motives for B2B Integration: An Empirical Study	Norbert Frick, Petra Schubert	With the ongoing process of building business networks in today's economy, business to- business integration (B2B Integration) has become a strategic tool for utilizing and optimizing information exchange between business partners. Industry and academia have made remarkable progress in implementing and conceptualizing different kinds of electronic inter-company relationships in the last years. Nevertheless, academic findings generally focus exclusively on certain aspects of the research object, e.g. document standards, process integration or other descriptive criteria. Without a common framework these results stay unrelated and their mutual impact on each other remains largely unexplained. In this paper we explore motivational factors of B2B integration in practice. In a research project using a uniform taxonomy (eXperience methodology) we classified real-world B2B integration projects from a pool of over 400 case studies using a pre-developed framework for integration scenarios. The result of our partly exploratory research shows the influence of the role of a company in the supply chain and its motive to invest in a B2B solution.
2010	23rd Bled eConference	Realising Benefits from Current ERP and CRM Systems Implementations: An Empirical Study	Petra Schubert, Susan P. Williams	In this study we report on the benefits achieved from enterprise systems implementations. Building on the existing research this paper uses the expectation-benefits framework as an analytical lens to identify and understand realised benefits. The study comprises 14 empirical case studies that focus on projects to extend existing ERP and CRM implementations. The work serves two key objectives. First to gain greater insights into the range and scope of realised benefits and second to further validate the exp-ben framework. Benefits are identified in all four areas of the exp-ben framework. Most notable is the continued focus on achieving integration and in the improvement of information quality and better business intelligence.
2010	23rd Bled eConference	Slovenian Micro Enterprises and eOpportunity Challenge	Borut Werber, Anja Žnidaršič	The paper investigates use of Internet in Slovenian micro enterprises, using data derived from 134 businesses. Data for the main study was collected via structured interviews with owners or top managers of micro enterprises between October and December 2009. The study showed that formal education of the manager and/or owner, his or her age, computer and IS knowledge and skills, size of the business (number of employees), the investments in hardware and software and level of Internet use (eBusiness, eBanking...) are positively associated with the micro enterprise success. Based on our survey and on the review of literature, recommendations have been given how to be more effective and efficient in introduction of eOpportunities to micro enterprises.

2010	23rd Bled eConference	ICT Capabilities and Possibilities in Micro-firms: A Study of Micro-firms in the ·land Islands Archipelago	Kristian Packalén	Regardless of what ICT solutions are planned or proposed, or in what situations ICT is considered, it is important to first have a thorough understanding of the current state of the situation in the organization in question, so as to be able to understand the readiness and the challenges that need to be overcome in the adoption process and resource-wise of the organization. In this paper we focus on these issues in micro-firms, which we define as firms having four or fewer workers. The aim of this paper is threefold; i) to make an assessment of the current ICT-capabilities and –skills in microfirms, ii) to see if the micro-firm owners realize potentials that ICT solutions can bring, and iii) assess the adoption process, what is needed for the micro-firms to come from i) to successfully adopting ICT solutions which could enhance the firm operations. To embark upon these aims, we have results from a survey sent to all firms in the ·land Islands archipelago.
2010	23rd Bled eConference	Online Corporate Social Responsibility Communication by Australian SMEs: A Framework for Website Analysis	Craig M. Parker, Ambika Zutshi and Bardo Fraunholz	There has been almost no IS related corporate social responsibility (CSR) research on small and medium enterprises (SMEs), and most non-IS research does not examine how SMEs use websites to communicate their CSR initiatives. This paper develops and applies a framework to report on the results of an exploratory content analysis of 33 Australian SME websites in the Information Media/Telecommunications and Accommodation/ Food Services sectors which communicate CSR initiatives online.
2010	23rd Bled eConference	Evaluation of e-Health in China	Yu Yun, Wilfred Huang, Juergen Seitz, Nilmini Wickramasinghe	Healthcare service is the core of the social welfare system, and has been widely focused by the governments, media and the public. The rapid development of e-commerce and the wide application of ICT have accelerated their uses in healthcare service. China welcomes ehealth service as it is developing globally, but like many other nations it encounters both opportunities and challenges. Therefore, the assessment of e-health is becoming more important. We analyze the current situation in China and assess its goals of realizing ehealth and the challenges of developing e-health.
2010	23rd Bled eConference	The Impact of Context on the Adoption of Health Informatics in Australia	Mary Paulette Kelly, Joan Richardson, Brian Corbitt, John Lenarcic	Australia's National Health and Hospital Reform Commissions e-health agenda has necessitated an improvement in our understanding of the factors impacting the intention to adopt integrated information systems. This imperative is echoed by OECD health ministers and forms the focus for the ministerial meeting schedule for October 2010, 'Health Priorities in the Aftermath of the Crisis'. This paper reviews the IS adoption literature to identify factors which influence the intention to use an integrated information system, and to share data. In particular this study incorporates input from medical professionals and others in the health sector in terms of describing their understanding of why integrated information systems are being presented as a solution to the problem of providing healthcare in the Australian healthcare setting. A qualitative analysis of the interviews highlights tensions in the healthcare sector which may be impacting intention to adopt ehealth initiatives. These tensions may resonate with other countries attempting to reform healthcare using ICT's.
2010	23rd Bled eConference	Crowdsourcing as a Business Model: An Exploration of Emergent Textbooks Harnessing the Wisdom of Crowds	Thomas P. Walter, Andrea Back	The process of writing textbooks is still very traditional regarding the status of authorship and expert opinions. Recently we observe the emergence of authors who follow a different approach, taping the wisdom of crowds as key resource of their own publications. In this paper, we explore business model innovation which leverages value propositions of textbooks by applying crowdsourcing. We use case study research methods to analyze four textbooks written collaboratively. Essential findings indicate occurrence of user-communities fulfilling peer-reviewing, editing or co-authoring despite a lack of monetary incentives. We further detect a tendency towards wiki software providing a community hub. This paper enters the field of partially crowdsourced textbooks and derives future questions of research.
2010	23rd Bled eConference	Computing Clouds on the Horizon? Benefits and Risks from the User's Perspective	Roger Clarke	The term 'cloud computing' has shot into prominence recently, driven, as most buzzphrases are, by marketing interests. The term encompasses multiple, pre-existing services, but an analysis of the phenomenon's key features shows that it includes some new developments. Those developments have potential user benefits. They also embody risks. Those risks will be almost entirely borne by users and their customers, and their impacts could be considerable. Where cloud computing is being considered for nontrivial applications, careful risk assessment and risk management are essential, for organisational and individual users alike.

2010	23rd Bled eConference	Introducing Real Time Communication: Frames, Modes & Rules	Stefan Klein, Nadine Vehring, Malte Kramer	The paper reports on the implementation of Lotus® Sametime® in a large financial services company. The paper uses the distinction of application and infrastructure view to elaborate on distinct modes of RTC use. Moreover, it provides a classification of managerial tasks and responsibilities and reflects on the balancing act of the managerial dictum and space for experimentation and organizational learning. The case highlights organizational design choices as well as managerial challenges. It provides rich insights into the processes of organizational embedding and rule setting, complemented by individual appropriation and self-organization on a group level. Processes of managerial and organizational alignment unfold against the backdrop of the dynamics of implementation.
2011	24th Bled eConference	Dissection of Dependency A Crossdisciplinary Review	Hameed Chughtai	Life in the modern societies, principally in the Western world, has been demystified. This demystification process has caused the social structures like technology, to lose some of the charm they had during the early Industrialisation period. Information and Communication Technologies (ICTs) have become integral parts of our identity in the context of organizational and personal life; the dependence on technology blurs the line between real and virtual worlds. This paper attempts to bridge the gap in understanding our dependence on modern technology. An attempt has been made to dissect the human-technology dependency to find out how technology is interpreted, it's meaning in the modern world, and what are the working mechanisms that are feeding this dependency as it grows with the growth of ICTs. The paper concludes that there is neither a single source of dependency nor a root cause. Instead the answer lies deep within the mesh of social patterns and structure and how we interact with them. The dependency in question is much more a function of the properties people attribute to ICTs than of what an ICT can or cannot actually be made to do.
2011	24th Bled eConference	The Potential of In-train Crowdsourcing	Bernard J. van der Wees, Hans Moonen	Nowadays railway operators are improving their services by offering IT-services within their trains. This paper reports on a design study we performed at Dutch Railways (Nederlandse Spoorwegen, NS) in order to research whether or not NS can crowdsource activities utilizing the novel in-train IT infrastructure it is currently rolling out, and provide their passengers a better journey experience at the same time. We specifically focused the potential of future services on the users intention to use the service over time. The study followed a design cycle, in which we created artefacts, and analysed adoption of these artefacts utilizing an in-train survey. Despite the limited scope of the study we can conclude that there is potential for in-train crowdsourcing. Passengers do show interest in the applications we designed, and the more general concept of in-train interaction. Adoption is more likely to occur when serious applications are used, as opposed to entertainment applications.
2011	24th Bled eConference	Ultraneet as a Future Social Network: An Actor-Network Analysis	Arthur Tatnall, Eva Dakich, Bill Davey	Community development is seen as an increasingly important role for government and the potential of Web 2.0 tools to aid in community development seems obvious. An experimental technology relating to e-government is being introduced by the State Government of Victoria, Australia. This involves a closed social network called the Ultraneet which is intended to support communities of parents, teachers and students in State schools. As the Ultraneet has only recently come into operation, this paper cannot present an analysis of its operation, only a theoretical investigation of its possibilities. In the paper the Ultraneet is seen as an innovation, and handled accordingly. An Actor-Network approach is proposed as a potential analytical lens for researching the Ultraneet, its application and its social impact. The paper also proposed use of actor-network theory to identify how the Ultraneet might be shaped by future use, and how it could be used to identify problematisations of this new network and the actors that it seeks to involve and hence to identify potential translations of the innovation. Analysis of these potential translations allows the creation of a theoretical framework that permits a sensible review of the introduction of the Ultraneet. The framework allows for the possible production of communities of practice amongst teachers, a „door. for parental involvement as opposed to the „windows. currently common in education, with an ideal that involves a Web 2.0 supported community where all parties (students, teachers, resources provided by the Departments of Education, parents and the local community) contribute. The paper suggests that perhaps this is the future of safe, secure social networking for schools.
2011	24th Bled eConference	Electronic Patient Records in Managing Medication Information - A Health Care Professional Perspective	Matti Mäntymäki, Eeva Heiro	Efficiently managed information is a key resource in clinical practice. Electronic patient records (EPRs) are in focal point in managing patient-specific medication information. In this multi-method-study, we combine qualitative and quantitative data to investigate Finnish physicians' perceptions of EPRs. Physicians consider EPRs important in their clinical practice and use them in managing patients' medication information while addressing a considerable dissatisfaction with quality of the current EPRs. Altogether the findings highlight the need for improving the quality of the systems and increasing the physicians' satisfaction to materialize the benefits from the EPRs.

2011	24th Bled eConference	The LITIS Initiative: Measuring the Level of eHealth Adoption in the Italian Healthcare Trusts	Oscar Tamburis, Massimo Mangia, Angelo Rossi Mori	The Italian Federation of Healthcare Trusts and Municipalities promoted a national initiative (LITIS, Italian acronym for: Levels of Technological Innovation in Healthcare), to assist its members in the governance of the eHealth phenomenon. The LITIS model spans over the complete spectrum of the eHealth support to care and administrative processes, from two perspectives: the Functions F (services for citizens, social / healthcare operators, managers, administrative staff) and the Enabling Components C (i.e. indirect factors that are prerequisites to deploy the Functions and handle the change). On the basis of a survey on nearly two thirds of the Italian Public Healthcare Trusts, LITIS produced a taxonomy of eHealth adoption indicators (145 micro-indicators in the lower layer; 36 topics, 12 sectors in the intermediate layer; 3 macro-area indexes and the "ICLI index", acronym for: Global Index of Innovation Level, at the upper layer) as a decisional tool for effective planning of the sector. The Healthcare Trusts were assigned to 5 "Classes of Adoption", according to their value for ICLI. A proposal for a stepwise "meaningful evolution" of the 5 Classes was produced, with an approach similar to the Capability Maturity Model.
2011	24th Bled eConference	Tribes & Cultures - Cross-disciplinary Communication: Pinpointing the Issues for eLearning	Naomi Dreher, Heinz Dreher	Effective communication and co-operation across disciplines is needed to create and deploy eLearning systems so that they contribute to enhanced outcomes for students and teachers. Using a Grounded Theory methodology we probed the cultures of the participating tribes: the Educationalists; the Instructional Designers; and the Information Technology Specialists. Six salient themes emerged from the semi-structured interview data of respondents selected from the three tribes, each of which is described in detail in this article. These themes give rise to Six Rules of Thumb to help promote fruitful communication and interaction among the tribes and cultures of eLearning system stakeholders, and thus result in improved eLearning systems.
2011	24th Bled eConference	Development of an Internet-Based Chronic Disease Self-Management System	Ali Sunyaev, Dmitry Chorny	Patient self-management programs and information systems that support them can improve the quality of healthcare. Flaws in user experience reduce the willingness of patients to adopt such systems. To explore how emerging technology such as rich Internet applications can be used to address the usability issues of personal health information systems, we developed a health self-management application that is based on an open-source framework. In this work we present the architecture of the system, discuss the issues we faced and lessons we learned while developing it. This work can help researchers and practitioners in evaluating approaches towards developing new generation of personal health solutions. Furthermore, this work serves as a basis for implementing a feature-rich system that can improve chronic disease self-management.
2011	24th Bled eConference	An Empirical Examination of the Relationships between the Dimensions of Culture and E-service Quality Perceptions	Hongxiu Li, Matti Mäntymäki	E-services are diffusing rapidly in the developing economies. E-service quality plays an important role in determining the customers' satisfaction and usage behaviour. Culture, in turn, has been found to influence customers' perceptions of service quality. However, the current understanding of the influence of culture on e-service perceptions is limited. This study presents a review of prior e-service quality literature and position ease of use, responsiveness, system availability and reliability as the predictors of overall e-service quality. Furthermore, we examine Hofstede's dimensions of culture as moderators between the dimensions of dimensions of e-service quality and overall e-service quality. Our research model is empirically tested with data collected from 453 Chinese e-service customers and analyzed using PLS. The results show that all the four dimensions of culture values influence on some, but not all, dimensions of e-service quality. Finally, directions for further research are suggested.
2011	24th Bled eConference	The Impact of Social Networking Sites on the Employer-Employee Relationship	Malte Martensen, Kathrin Börgmann, Markus Bick	The effects that internet-based social networking sites (SNS) have on the labour market have yet to be investigated. The purpose of this paper is to examine whether and in what way SNS are changing the nature of the relationships between employers on the one hand, and employees and job applicants on the other. By means of an online survey, information was collected about attitudes towards data security, self-marketing and career development. This study suggests that employees who use social networking sites as self-marketing tools aim to build a positive reputation and thus redress the asymmetrical information relationship with employers. The survey also shows that data security plays an important role.
2011	24th Bled eConference	Information Management Issues and Challenges in an Enterprise 2.0 Era: Imperatives for Action	Susan P. Williams, Catherine A. Hardy	The potential benefits of E2.0 such as improved intra- and inter-organisational collaboration and information sharing are now widely acknowledged, however the management of digital information arising from the use of E2.0 technologies is presenting significant issues and challenges. In this paper we report on a research study to identify the issues and challenges associated with E2.0 and digital information management more widely and outline key imperatives for action. Key issues emerging from the analysis include uncertainty about the nature and scope of E2.0 and how the information it generates should be preserved and managed in a dynamic and changing environment.



2011	24th Bled eConference	Web vs Phone based Service Experiences: Effects of Emotions on Customer Satisfaction Across Sectors	Luuk Simons, Mark de Reuver, David J. Langley, Roelien Attema-van Waas, Maarten C. Hoeve, Femke Hulsbergen, Nicole de Koning	Empirical studies show that emotions mediate the impact of perceived service quality on customer satisfaction. In this paper, we explore how the mediating effect of emotions differs between web and telephone encounters. In addition, we explore if this mediating effect differs across three service industries that rely heavily on telephone and web customer care: telecommunications, energy and banking. We use SEM to analyze a large-scale consumer survey (N = 2872) in telecommunication, energy and banking sectors. Emotions partially mediate the effect on customer satisfaction, both for telephone-based (25% mediation) and web-based service encounters (21%). When distinguishing positive and negative emotions, the mediating effect of negative emotions is much stronger. While mediation takes place in all three sectors, negative emotions in phone-based service encounters are more important in telecommunications, while negative emotions in web-based encounters are more important in banking industry. We advise firms to use explicit emotion evoking strategies for positive service experiences and emotion reducing strategies for negative ones.
2011	24th Bled eConference	Participatory Design of Web 2.0 Applications in SME networks	Martina Peris, Alexander Sperling, Nadine Blinn, Markus Nüttgens, Nick Gehrke	In increasingly complex and dynamic markets, small and medium sized enterprises (SME) face new challenges. Amongst others, these are innovativeness and technological expertise. In order to counteract the challenges, SMEs cooperate in corporate networks. Here, information and communication technologies are main drivers. At this point, Web 2.0 technologies are uttermost important. Until now, the development and implementation of Web 2.0 applications in SMEs was proceeded independently from the future users. We aim at bridging this gap by developing a participatory procedural model. The presented model includes the futures users from the beginning of the development process. The model respects SME specific characteristics.
2011	24th Bled eConference	Analytical Social CRM: Concept and Tool Support	Olaf Reinhold, Rainer Alt	The Social Web offers new opportunities, such as direct market access, interactive customer contact or a better understanding of market demands, in the field of customer relationship management (CRM). Consequently, firms develop new strategies, processes and technologies to utilise the Social Web for their needs. From the perspective of CRM, the Social Web creates an opportunity to directly include customer knowledge and shape a field called Social CRM (SCRM). Even though methods and tools for data extraction and media monitoring are already available, the analytical requirements of SCRM and necessary functionalities are open for research. This research explores the role of analytical SCRM and examines available tools with the required functional and technological components. The findings show that existing tools still have a limited functional scope which makes a 'best-of-breed' approach necessary. Finally, a concept for an integrated analytical SCRM system is proposed that comprises necessary SCRM components.
2011	24th Bled eConference	What are they Thinking? - Accessing Collective Intelligence in Twitter	Martin Böhringer, Patrick Helmholz	In today's social networks like Twitter and Facebook, each day millions of status updates provide a huge source of information on current sentiments of their users. However, still it is unclear how to structure problems in a way that they can be answered based on social networking activities. Facilitating an exploratory prototype, we tested the direct retrieval of user opinions during the FIFA World Cup 2010 in Twitter. Our findings based on an initial research framework suggest that using social networks can serve as an access point to collective intelligence. However, the experiment also showed weaknesses of the used approach. Therefore we discuss an updated research model based on our results which provides a foundation for future works.
2011	24th Bled eConference	Assessing Degrees of Web-2.0-ness for Websites: Model, Method, and Results for Product Websites in the Pharmaceutical Industry	Andrea Back, Christopher Haager	This paper describes the development of a maturity model to assess the Web-2.0-ness of websites. The model draws on O'Reilly's Web 2.0 principles and patterns. It distinguishes six dimensions with four degrees of 2.0-ness each. The rating scheme has been evaluated and refined to improve inter-rater reliability in a discussion and a coding iteration. This model raises awareness for 2.0-ness, helps to benchmark website design, and supports decisions about 2.0-ness adoption. Based on aggregated scores and a normal distribution, our sample of 44 pharmaceutical over-the-counter (OTC) product websites is classified in three maturity stages: Innovators, Adopters, and Laggards. The model can also be used for other industries and website types. In five of the six dimensions, at least one website reaches the top degree, but none achieves top grades in every dimension. Diversity in 2.0-ness is observed for product websites in the pharmaceutical industry, as well as for one company's different product brands. Further research will extend the 2.0-ness analysis to the overall web presence, including social media sites. Another next step is to relate 2.0-patterns to websites' success measures

2011	24th Bled eConference	The Cloudy Future of Consumer Computing	Roger Clarke	Consumers used to run software on their own devices and store their data at home. They are now increasingly dependent on service-providers for both functionality and data-storage. Risk assessment techniques need to be applied to consumer contexts. These are diverse, covering many kinds of consumer devices, many different consumer profiles, and various consumer needs. A preliminary evaluation concludes that consumers who place reliance on outsourced consumer services may be seriously exposed, because the Terms of Service of mainstream service-providers offer very low levels of assurance about features critical to consumers' interests.
2011	24th Bled eConference	The Implementation of Electronic Health Records: A Two Country Comparison	Helen Cripps, Craig Standing, Vesna Prijatelj	The adoption of electronic health records has been significantly slower in Australia than many European countries. This paper compares the implementation process in Australia with Slovenia, looking at the benefits, drawbacks and success factors of ehealth implementation. The authors use case studies collected in each country to discuss issues around ehealth implementation. Though Slovenia has progressed much further down the road of ehealth the commonality of the experiences between both cases was striking.
2011	24th Bled eConference	Research Toward the Practical Application of a Risk Evaluation Framework: Security Analysis of the Clinical Area within the German Electronic Health Information System	Ali Sunyaev, Johannes Pflug	The following study provides a risk analysis of the forthcoming nationwide healthcare information system in Germany. Based on the information security audit methodology of the Federal Office for Information Security (BSI), we evaluated the introduction of the new system in hospitals with respect to security. Conceptually, the study focuses explicitly on an organizational level; specifically the use of healthcare telematics components such as electronic health card and health professional card. A dual approach of both security process and risk analysis thereby established an adequate level of information security. For this purpose, an appropriate framework specifically designed for the clinical area is first developed and explained in detail. Based on these perceptions it is possible to precisely check the workflows "patient admission" and "prescription of medicine" for inherent organizational threats. The aim of this paper is to propose appropriate steps to mitigate potential risks before German healthcare telematics comes into use.
2011	24th Bled eConference	An Empirical Study of Enterprise 2.0 in Context	Susan P. Williams, Petra Schubert	As Enterprise 2.0 (E2.0) initiatives are gradually moving out of the early experimentation phase it is time to focus greater attention on examining the structures, processes and operations surrounding E2.0 projects. In this paper we present the findings of an empirical study to investigate and understand the reasons for initiating E2.0 projects and the benefits being derived from them. Our study comprises seven in-depth case studies of E2.0 implementations. We develop a classification and means of visualising the scope of E2.0 initiatives and use these methods to analyse and compare projects. Our findings indicate a wide range of motivations and combinations of technology in use and show a strong emphasis towards the content management functionality of E2.0 technologies.
2011	24th Bled eConference	Habit Formation in Twitter	Ivy Liu, Christy Cheung, Matthew Lee	The concept of habit has been receiving a lot of attention among Information Systems (IS) researchers. In recent years, we have witnessed a considerable progress in the conceptualization and operationalization of IS habit. However, little theoretical and empirical attention has been given to the formation of IS habit. To fill this gap, this paper builds and tests a theoretical model investigating the factors affecting the formation of habit in the context of Twitter. An online survey was conducted and data from 167 respondents were analyzed using PLS. The results showed that satisfaction, frequency of past behaviour, and convenience were important in determining habitual use of Twitter. In addition, social presence had significant impact on user satisfaction with Twitter. This paper concludes with a discussion of theoretical and practical implications.
2011	24th Bled eConference	Harnessing the Power of Social Media in the Music Industry: A Finnish Case Study	Jari Salo, Matti Mäntymäki, Mikko Lankinen, Sami Kajalo	This study explores how music industry and consumers perceive marketing actions in social media. We employ four case studies and one focus group in the empirical research. The results demonstrate that the music industry utilizes social media to establish communities, advertise new artists and songs, promote concerts and uploads videos to get visibility for their brand. Furthermore, consumers perceive social media marketing activities positively. Finally, we emphasize need to find more innovative ways to harness the power of social media in the music industry.

2011	24th Bled eConference	Do We Have Enough ICT Specialists in the Period of eDependency?	Petr Doucek, Renata Kunstova, Milos Maryska	After overwhelming the crisis period turbulent economic environment is typical for present days as well as permanent increasing dependability of all our activities on information and communication technology (ICT). General basis for using ICT in economy is sufficient number of well-qualified specialists with university education background, especially ICT professionals. In this contribution two research questions are formulated. Answers to them evaluate and compare real starting positions of Slovenia and the Czech Republic from the point of view of number of university graduates (with partially accent on ICT education) as driving potential in the economy. Some recommendations, proposals and forecasts for further development of education system in Slovenia and the Czech Republic are presented at the end of this contribution.
2011	24th Bled eConference	Smart Coping with Stress: Biofeedback via Smart Phone for Stress Reduction and Relapse Prevention in Alcohol Dependent Subjects	Edith Maier, Ulrich Reimer, Monika Ridinger	The paper presents the design plan for a mobile solution aimed at stress reduction. The solution will be developed by a team of medics, psychotherapists, HCI experts and knowledge engineers and will provide continuous data sensing and feedback about personal stress levels. At the same time contextual and activity information will be captured. Stress management is particularly important for high-risk populations such as former alcoholics to reduce the risk of relapse; they will therefore test and validate the solution. By combining and correlating psycho-physiological data with data on activities (e.g. walking or social interactions) and environment/location (e.g. ambient light) it is expected that sources of stress can be recognised which in turn will allow individuals to either avoid stress-inducing factors or develop appropriate coping strategies. To make sense of the data captured, it is proposed to use intelligent algorithms to recognise patterns in the data streams and semantic technologies to interpret the text messages of users. People with other stress-related health problems such as burn-out, smoking, depression or sleeping problems will also benefit from our research.
2011	24th Bled eConference	The Effects of Gender, Age, and Income on the Willingness to Pay for Music Downloads	Markus Makkonen, Veikko Halttunen, Lauri Frank	This paper examines the effects of gender, age, and income on the willingness to pay (WTP) for music downloads. The examination is based on an online survey of 1 330 Finnish consumers conducted in June 2010. The analysis of the survey data follows a two-phase strategy. In the first phase, the effects of the explanatory variables on the consumers' unwillingness to pay (UWTP) for album and track downloads are examined by using contingency tables and the Pearson's $\chi^2$ tests of independence. In the second phase, the effects of the explanatory variables on the consumers' actual WTP for album and track downloads are examined by using one-way analysis of variance (1-ANOVA) and post-hoc multiple comparisons. The results of the analysis suggest that there are several statistically significant differences in the WTP for albums and tracks between the examined consumer segments. These findings and their implications should be taken into consideration in the future business models of music download stores.
2011	24th Bled eConference	Cloud Nine? An Integrative Risk Management Framework for Cloud Computing	Indrit Troshani, Giselle Rampersad, Nilmini Wickramasinghe	Cloud computing is heralded to be one of the most significant information technology developments in recent years. There is widespread agreement that the adoption of cloud resources and capabilities is poised for strong growth into the future. Nevertheless, there is paucity of research concerning the perceived risks that affect the adoption intentions of prospective organisational adopters. In attempts to contribute to the existing body of knowledge, this study draws on qualitative evidence to explore perceived cloud computing risks. It culminates with an integrative risk management framework for the adoption of cloud computing.
2011	24th Bled eConference	Using Activity Theory to Examine Information Systems for Supporting Mobile Work	Michael Er, Elaine Lawrence	An information system delivers support for decision making; however the physical constraints associated with mobile work often means that such support is limited. Despite the limitations, mobile workers manage to get work done. A broader review of a mobile worker's information system use reveals information sources that are outside the usual analysis of the technology and data. Decision making in mobile work would benefit from the development of these alternative information sources. A comprehensive description of the existing information system of mobile workers is a vital step in supporting technology development. This paper considers two different mobile workers, their information system and how they interact with that system. To assist in presenting a holistic view of the case studies, Activity Theory is used as a lens of interpretation.
2011	24th Bled eConference	The Application of Bayesian Belief Networks	Barbara Krumay, Roman Brandtweiner	The analysis of nominal data is often reduced to accumulation and description. Bayesian methods offer a possibility to analyse nominal data in a more sophisticated way. The possibility to indicate a structure via graphical representation, where variables are nodes and relationships are edges, enriches this method and makes it a powerful tool for data analysis. In this paper, an overview on Bayesian methods is given, the underlying rule is presented and some specialities will be discussed. Bayesian belief networks are described in brief and their potential to use them in case of uncertainty is presented. This includes not only the methods, but also possible applications in this context.

2011	24th Bled eConference	Collaborative e-Purchasing for Hospitals: IT for Addressing Collaborative Purchasing Impediments	Robbert Kusters, Johan Versendaal	The benefits of collaborative purchasing are many, yet in the healthcare sector, in particular at hospitals, it is still uncommon. In this paper we identify major impediments for collaborative purchasing, resulting in a first component of our proposed collaborative e-purchasing model for hospitals; as a second component it contains a collaborative purchasing typology. After analysis of a first validation round with hospital purchasing professionals, the results show four applicable purchasing types and fourteen collaborative purchasing impediments that are perceived as important for hospitals. The model is further extended by possible IT solutions, identified by experts, addressing the specific fourteen impediments. We conclude that the collaborative e-purchasing model can be used by healthcare consortia, branche organizations, partnering healthcare institutes and multi-site healthcare institutes as a means to help identifying strategies to initiate, manage and evaluate collaborative purchasing practices.
2011	24th Bled eConference	Supply Chain Systems maturing towards the Internet-of-Things: A framework	Christiaan Katsma, Hans Moonen, Jos van Hillegersberg	The Internet-of-Things (IoT) concept has been gradually developing, but it is unclear how extensive this concept is adopted within the supply chain domain. We derive an architectural framework to investigate four layers of ICT deployment. This framework enables practitioners and scientist to specify a status quo on different architectural levels and to identify possibilities for further improvement. Four extensive cases are investigated with this framework. One of the important conclusions is that "IoT" like technology and applications are pioneered in research programs, but operational logistic systems in diverse organizations primarily rely on less advanced technology, organizational structures- and work forms. This work can help in identifying gaps where IoT can strengthen future applications.
2011	24th Bled eConference	Does ICT Policy Improve Interorganisational ICT for SMEs? A Dutch Policy Evaluation Study	Marijn G.A. Plomp, Ronald Batenburg, Pim den Hertog	Interorganisational ICT has become critical for the performance of both small and large organisations. SMEs however, traditionally lag behind in the uptake of these systems. In many countries, various policy programmes are initiated to improve ICT uptake by SMEs and support them in digital linking throughout their value chain. In the Netherlands, a nationwide policy programme was in place between 2002 and 2007 that is a prominent example of this type of policy initiatives. In this paper we present the results of an ex post evaluation of this programme, by comparing survey data collected among 516 participating SMEs with survey data collected among a control group of 124 SMEs. In bivariate analysis, significant differences are found between the two groups with regard to the adoption of several types of interorganisational ICT. These differences remain intact if split sampling of the groups is applied by size (small/medium) and sector (trade/finance/public). Furthermore, it is found that participants of the policy programme perceived significantly more added value of ICT. In interpreting these results however, pre-selection effects should be taken into account.
2011	24th Bled eConference	A Maturity Model for B2B Integration (BIMM)	Norbert Frick, Petra Schubert	Electronic data exchange along the supply chain has been discussed in the information systems (IS) academic literature for many years and remains a practical problem for enterprises worldwide. In this paper we present a Maturity Model for B2B Integration (BIMM). The model is a result of a longitudinal research project on B2B integration. The BIMM was developed to assess the capability level for electronic document exchange of players in a supply chain and addresses current limitations of existing maturity models. The BIMM was developed a-priori from an extensive literature review and an explorative study of 112 company cases. In the next stage of the research the model will be validated using real-world data from leading B2B integration providers.
2011	24th Bled eConference	Novice-based Data Collection Methods for the Study of IOIS: Practice Probes and Learning Communities	Kai Reimers, Robert B. Johnston, Xunhua Guo, Stefan Klein, Bin Xie, Mingzhi Li	In response to the increasing influence of practice theory perspectives for studying organisational and inter-organisational information systems, we demonstrate that an important dilemma from this perspective for data collection methods is between authentic access to practices and the ability to thematise knowledge of practices. We propose a promising new approach to this dilemma that uses the learning experiences of novice practitioners to collect data as they are progressively enrolled in the practice, and describe two instantiations of this new approach, practice probes and learning communities.
2011	24th Bled eConference	Fulfilling the Needs of eSports Consumers: A Uses and Gratifications Perspective	Thomas Weiss	eSports services are situated between cooperation - distinctive for many hedonic activities - and competition - relevant to the creation of hedonic behavior. This raises the challenge for eSports providers to offer services that fulfill consumers' needs. Against this background, we apply Uses and Gratifications theory (Rayburn and Palmgreen, 1984) and investigate which competitive and hedonic need gratifications drive continuous use of eSports. We conduct ten in-depth expert interviews and a multiple regression analysis based on survey data collected from 360 eSports players. With competition, challenge, and escapism both competitive and hedonic need gratifications drive continuous eSports use.

2011	24th Bled eConference	Liability for Trademark Infringement in Web 2.0 era: Analysis of Legal Conundrum in Google and Ebay Cases	Paul Polanski	Many online entrepreneurs do not realize that they may be held legally liable for keywords they select during their marketing campaigns, especially if they correspond to registered or famous trade marks. The present contribution highlights some of the most important aspects of the Google and eBay cases that illustrate this problem. The European Court of Justice has recently ruled that a search engine provider is not infringing trade marks as it does not "use" them in a legal sense. The advertiser, in turn, will usually be held primarily liable, although eBay dispute demonstrates there may be a room for manoeuvre for larger intermediaries. These legal developments are important, firstly because they promise to offer a greater protection to Web 2.0 business models based on user-generated content. Secondly, online business offering paid search services will be shielded from liability for storing infringing content provided that their activities remain technically neutral.
2011	24th Bled eConference	Understanding Continued Usage Intention in e-learning Context	A.K.M. Najmul Islam	With the latest development of the Internet technologies, it has offered many e-learning systems available for the educators to conduct courses online. The advantage of using such systems in connection with on-site courses is that it increases flexibility through resources that facilitate learning anytime anywhere. However, there is little empirical evidence to suggest what factors underpin educators continued usage of such systems. This study builds a model based on the Unified Theory of Acceptance and Use of Technology to identify the factors. The model is tested among the university educators (n = 175) who use a popular e-learning system, Moodle. The results suggest that continuance intention is driven by perceived usefulness and access. Perceived ease of use, perceived behavioral control, compatibility, and social influence do not have significant impact on continuance intention. These core determinants of continuance intention altogether explained around 70% of the total variance of intention.
2011	24th Bled eConference	Sarkar, Butler & Steinfield (1995) "Intermediaries and Cybermediaries" Revisited: A Review and Identification of Future Research Directions for Intermediaries in Electronic Markets	Benjamin Rensmann, Stefan Klein	Intermediation in markets is a phenomenon that has been studied by many researchers from a variety of different theoretical angles. With the introduction and diffusion of the Internet in everyday life, broad predictions were made that called for disintermediation enabled by direct Internet linkages between suppliers and buyers and lower transaction costs. The often-cited paper by Sarkar, Butler and Steinfield (1995) challenges this prediction. By comparing Internet effects on transaction costs with the cost situation ex ante, the paper explains that both direct sales or cybermediated sales are possible outcomes. In this paper we confront key assumptions of the Sarkar et al. paper with recent developments in the tourism market. We find that in the tourism market a multitude of direct and indirect distribution channels exist next to each other. Multi-level distribution channels often including several cybermediaries have been built, resulting in a complex market topology. We also see a large variety of intermediary roles, resulting from highly specialized and highly integrated cybermediary business models. Furthermore the model of Sarkar et al. fails to deliver an explanation for the on-going dynamics in the tourism market in terms of shifts towards more or less intermediaries and the emergence of new intermediary-like business models. By taking these trends into account we are able to identify relevant future research directions in order to extend our understanding of the phenomenon of electronic intermediaries in markets.
2011	24th Bled eConference	Modelling Value Delivery and Organizational Capability Building in the Hungarian Web Agency Industry	Andras Nemeslaki, Dániel Füleki, Zsolt Theiss-Balázs	Web agencies are firms which develop web based models for companies. These models vary from simple web pages through on-line marketing techniques all the way to full process integration to payment solutions. The operation of web agencies raise several dilemmas: for instance how pricing of such services are set, what type of technology they use and what type of carrier path they provide for the job market. After looking into the question in Hungary we realized that there are several questions unanswered regarding the web development industry. First, there is no information about the market in terms of the number of companies and their impact on e-commerce in Hungary. Secondly, we have no information on how technology is organized and aligned for value creation in this industry. In our research we explored the Hungarian web agency industry in terms of the numerical size of the market, structure of value creation activities and how technologies together with HR skills create organizational capabilities for web agencies.

2011	24th Bled eConference	A Business Rules Viewpoint on Risk and Compliance Management	Martijn Zoet, Johan Versendaal, Pascal Ravesteijn	Business rules management is a mean by which an organization realizes controllability of business activities to fulfill goals. Currently the focus of controllability is mainly on effectiveness, efficiency and output quality. Little attention is paid to risk, stakeholder concerns and high level goals. The purpose of this work is to present a viewpoint relating business rules management with concepts of risks, stakeholder, concerns and goals. The viewpoint is presented by means of a meta-model existing out of six concepts: stakeholder, concern, goal, business rule, requirements and implementation mechanism. In a case study the proposed view is validated in terms of completeness, usability and accuracy. Results illustrate the completeness, usability and a high degree of accuracy of our defined view. Future research is suggested on the development of a modeling language to improve the communicational value and ease of use of the meta-model.
2011	24th Bled eConference	Studying IOIS as Structurally Coupled Systems	Stefan Schellhammer	The complexity of studies concerning the development of inter-organisational information systems (IOIS) over large timescales poses severe challenges on existing models and theoretical frameworks. Such 'evolutionary' research requires multiple perspectives on the phenomenon in order to account for changes as well as persistent elements of the IOIS. In this paper the theoretical concept of 'structural coupling' derived from autopoietic theory is proposed as a means to conceptualise the required alignment of independent organisations that venture into an IOIS. The need for a new concept is motivated against the backdrop of a case study covering the evolution of an electronic ordering system over almost three decades. Subsequently, the case study is used to illustrate the applicability of the concept to the empirical data. The paper finds that conceiving IOIS as structurally coupled systems offers a new and promising venue to study these systems on large timescales.
2011	24th Bled eConference	The Role of Redress in B2C E-Business: An Exploratory Study of Consumer Perceptions	Chin Eang Ong, Pradip Sarkar, Caroline Chan	Redress provides a formalized recourse to consumers in lodging complaints against poor customer service. Its importance is heightened in the realm of B2C e-business where traditional means of establishing rapport with brick-and-mortar stores do not exist. However, redress has yet to be aptly understood and the study of its role in e-business has been sparse. This paper presents an exploration into the role of redress in online B2C transactions, through the perceptions of a selected group of online consumers, with key implications for online business practices and customer relationship management.
2011	24th Bled eConference	Maturity of Operational Procurement in the Construction Industry: A Business/IT-Alignment Perspective	Xiaochun Xing, Johan Versendaal, Marjan van den Akker, Bastiaan De Bevere	Project execution in the construction industry faces major challenges, e.g. difficulty in coordination and cooperation. Operational procurement during project execution is no exception. In this paper we construct a maturity model, based on earlier work, consisting of six dimensions (goal, control, process, organization, information, technology) and five maturity stages (transactional-oriented, commercial-oriented, coordination, internal-optimized, external-optimized). The model can be used to determine the level of procurement maturity for each of the dimensions, and for the determination of a strategy for growth in the construction industry. With input from a major construction firm in the Netherlands, through simulating tooling, the model is evaluated for its contribution to growth in operational excellence. Results of the simulation show support for a relation between maturity growth and increased operational excellence.
2011	24th Bled eConference	Escalating IT-projects: A Text-analysis of Risk-framing Effects of Managers	Nick Benschop, Arno Nuijten, Gert van der Pijl	Despite significant research in the area, many IT projects fail to realize their targets with regards to time, budget or functionality. Resources continue to be committed to projects even though information is available which indicates that they are no longer viable. Prospect theory explains that these decisions can result from the risk preferences of individuals. A framing effect occurs when specific words are used, or attributes are emphasized, which influence these risk preferences. This research uses text analysis to determine which types of framing are applied by project managers when discussing a project. This information is used to gain insight into their so-called 'project frame' which helps to predict their decision making behavior. The findings demonstrate that the three main types of framing are indeed applied during conversations and that these can be linked to either a positive or a negative project frame.

## The First 25 Years of the Bled eConference

### Appendix 4: Tag-Clouds for Bled Paper Titles 1995-2011

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

3-year blocks, except 1995-06 which is a 2-year block

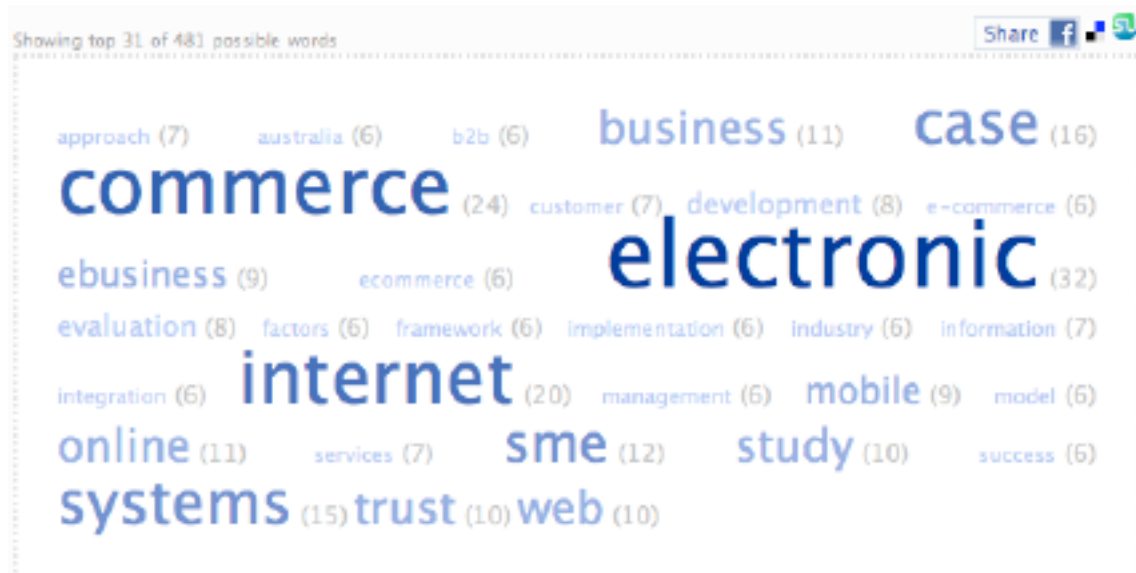
#### 1995-96



#### 1997-99



#### 2000-02



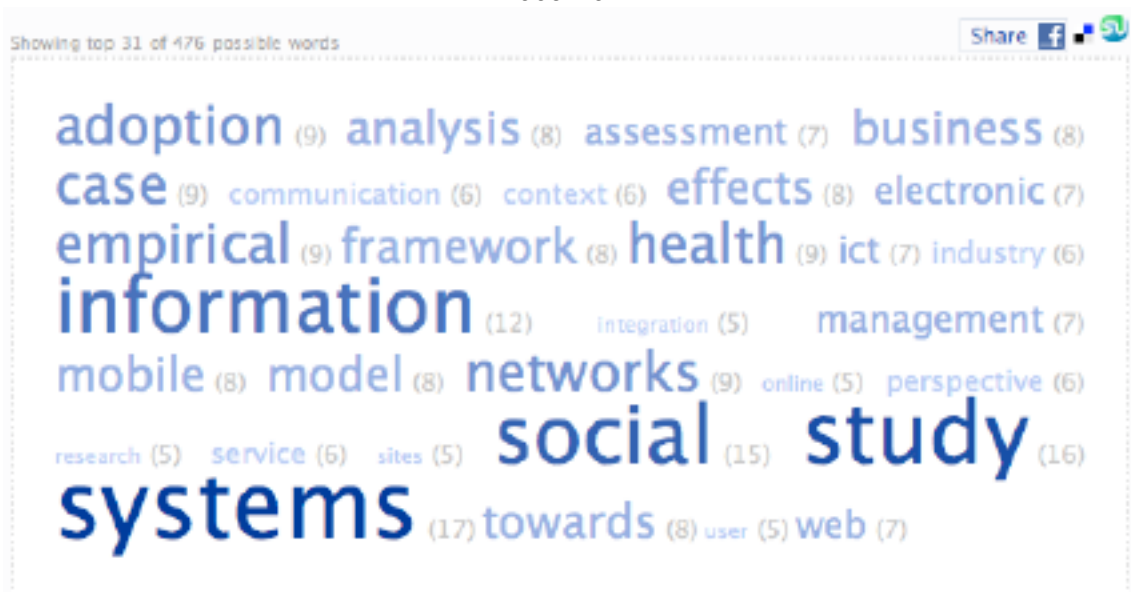
2003-05



2006-08



2009-2011





## The First 25 Years of the Bled eConference

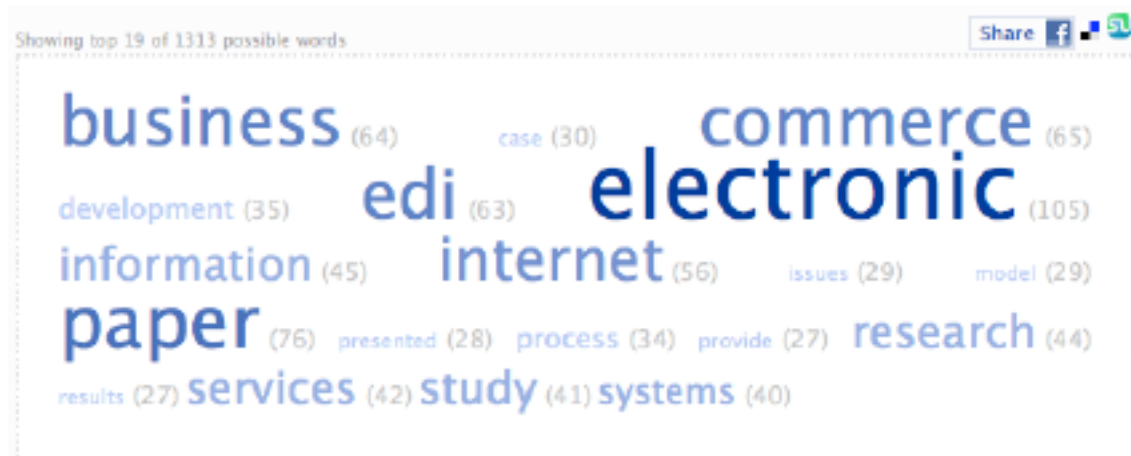
### Appendix 5: Tag-Clouds for Bled Paper Abstracts 1995-2011

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

1995-96



1997-99



2000-02



2003-05



2006-08



2009-2011



**'Keyword in Title' Analysis - Bled eConferences - 1995-2011**

<u>Keyword</u>	<u>Count</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
<b>eBusiness Categories</b>	<b>571</b>																	
eCommerce	140	5	12	10	16	19	19	19	5	6	3	5	3	3	3	6	2	4
EDI	41	13	13	5	6	1	2			1								
EDI ==>> XML	5					1		1		1	1	1						
eGovernment	35					1	2		1	1	5	4	5	6	6	1	3	
eHealth	32									2	1	1	5	1	3	3	10	6
eMarketing, Cust Relnships, Consumer Behav	55	1	1	2	1	3	2		3	6	4	3	4	4	4	6	3	8
eMarkets, Directories, Auctions	51	1	3	3	6	9	4	5	5	3	3		2	4	3			
ePayments, eBanking	14		1		4		1	2	1	2					1	1	1	
eProcurement, Sourcing	18	2		1		1			2	2	2	1	1	3		1		2
ePublishing, Content Mngt	16			3	1	1		2		2	2	1	1	2	1			
Infrastructure	23			1	3	3	2	2	2	3		2	2	2		1		
Int'l Trade	8	1	1	1		1		1		1			1	1				
Logistics	12		3	2	1	2				1		2				1		
Mcommerce, Mobile Apps	56						1		6	10	5	6	6	7	6	5	2	2
Regional / City Applications	12		2	1	1	1		3	1				1		1	1		
SMEs	53	1	5	1	5	3	7	3	6		3	4	1	4	3	1	4	2
<b>Corporate Perspectives</b>	<b>216</b>																	
Business Models	29							1	3	8	6	4	1	3	2	1		
BPR, Transformation, IT alignmt, IT Integration	42	2	4					1		4	7	6		5	1	7	2	3
Controls, Audit	8	1		1			1	1			1	1	1		1			
Employee Usage, Telework	5			2								2						1
IOS	24	4	3	3	4		1			2	2	1		1	1	1		1
Partnering / Corporate Collaboration	18	2	2			3	1		2	2	2	2		2				
Strategic / Compet Advantage	16		1	2	1		2		2	2	1		1	3	1			
Strategic Alliance, Bus Networks, Virtual Orgs	37	1					2		2	2	5	2	2	4	9	4	2	2
Supply Chains, ECR, Intermediaries	37		1	2	5	2	6	2	3	4	2	1	3	2	1		1	2
<b>Research Topic Clusters</b>	<b>185</b>																	
Adoption, Impediments, Success Factors	52		1	2	1	2	2	5	4	7	4	6	6	5	3	1	2	1
Legal Aspects	8			1		2			1			1	2					1
Modelling, Simulation	14	2			1	3	1					2	1	1		1	1	1
Privacy	11						1	1	1	2	1	1	2	1		1		
Requirements Anal	8	1			1	1	1		2			1						1
Security	15	1		2	2		1	1	1	2	1	1	1	1				1
Social Media, Prosumerism	18													1	2	3	7	5
CSCW, Communities, Ind'l Collaboration	22				1			1	1	3	2	2	4	1	2	1	1	3
Trust, Reputation, Risk	37				1		1	3	5	7	5	2	2		1	1	5	4
Papers:	773	25	32	33	43	44	48	48	46	70	52	51	52	59	45	42	41	42
Keywords:	972	38	53	45	61	59	60	54	59	86	68	65	58	67	55	48	46	50

## **The First 25 Years of the Bled eConference**

### **Appendix 7: Outstanding Paper Award Winners**

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

**24th CONFERENCE (2011) - CHAIR NILMINI WICKRAMASINGHE, RMIT UNIVERSITY, MELBOURNE, AUSTRALIA**

Novice-based Data Collection Methods for the Study of IOIS: Practice Probes and Learning Communities

Kai REIMERS [1], Robert B. JOHNSTON [2], Xunhua GUO [3], Stefan KLEIN [4], Bin XIE [3] and Mingzhi LI [3]

1 - RWTH Aachen University, DE, 2 - University College Dublin, IE, 3 - Tsinghua University, CN, 4 - University of Münster, DE

**23RD CONFERENCE (2010) - CHAIR HANS-DIETER ZIMMERMANN, FHS ST GALLEN, UNIVERSITY OF APPLIED SCIENCES, SWITZERLAND**

Tweet Inside: Microblogging in a Corporate Context

Kai RIEMER [1] and Alexander RICHTER [2]

1 - University of Sydney, Australia, 2 - Bundeswehr University, Munich, Germany

**22ND CONFERENCE (2009) - CHAIR PAULA M.C. SWATMAN, UNIVERSITY OF SOUTH AUSTRALIA, AUSTRALIA**

Seeing a Patient's Eyes: System Trust in Telemedicine

Janis GOGAN, Monica GARFIELD, and Ryan BAXTER

Bentley University, Waltham, MA, USA

**21ST CONFERENCE (2008) - CHAIR FELIX HAMPE, UNIVERSITY OF KOBLENZ-LANDAU, GERMANY**

Multi-Level Analysis of Complex IS Change: A Case Study of eCustoms

Boriana RUKANOVA (1), Eveline VAN STIJN (2), Helle ZINNER HENRIKSEN (2), Ziv BAIDA (3), Yao-Hua TAN(1)

1 - Vrije Universiteit Amsterdam, Faculty of Economics and Business Administration, The Netherlands, 2 - Copenhagen Business School, Center of Applied ICT, Denmark, 3 - IBM Nederland, The Netherlands

**20TH CONFERENCE (2007) - CHAIR M. LYNNE MARKUS, BENTLEY COLLEGE, MASS.**

Rethinking EU Trade Procedures: The Beer Living Lab

Ziv BAIDA, Boriana RUKANOVA, Jianwei LIU, Yao-Hua TAN

Free University Amsterdam, The Netherlands

**19TH CONFERENCE (2006) – CHAIR PIRKKO WALDEN, ABO AKADEMI UNIVERSITY, FINLAND**

Mobile Service Bundles: The Example of Navigation Services

Timber HAAKER (1), Henny DE VOS (1), Harry BOUWMAN (2)

1 – Telematica Instituut, The Netherlands; 2 – Delft Uni. of Technology, The Netherlands

Revised version published in Electronic Markets 17, 1 (January-March 2007) 20 - 28

18TH CONFERENCE (2005) – CHAIR DOUG VOGEL, CITY UNIVERSITY OF HONG KONG  
Internet Users' Privacy Concerns and Attitudes towards Government Surveillance:  
An Exploratory Study of Cross-Cultural Differences between Italy and the United States  
Tamara DINEV (1), Massimo BELLOTTO (2), Paul HART (1), Christian COLAUTTI (3), Vincenzo  
RUSSO (3) & Ilaria SERRA (1)  
1 – Florida Atlantic University, U.S.A.; 2 – University of Verona, Italy; 3 – University IULM, Milano, Italy

17TH CONFERENCE (2004) – CHAIR YAO-HUA TAN, FREE UNIVERSITY OF AMSTERDAM  
The Influence of Product Type on Online Trust  
Khaled HASSANEIN & Milena HEAD  
DeGroote School of Business, McMaster University, Canada  
Revised version published in Int'l J. Electronic Commerce 10, 2 (Winter 2005)

16TH CONFERENCE (2003) – CHAIR ROLF T. WIGAND, UNIVERSITY OF ARKANSAS AT LITTLE ROCK  
User Representation in eCommerce and Collaboration Applications  
Michael KOCH and Kathrin MÖSLEIN  
Technische Universität München, Munich, Germany  
Revised version published in Int'l J. Electronic Commerce 9, 3 (Spring 2005)

15TH CONFERENCE (2002) – CHAIR CLAUDIA LOEBBECKE, UNIVERSITY OF KÖLN  
Intranet Boundaries: Social Actors and Systems Integration  
Roberta LAMB  
Uni. of Hawaii, U.S.A.  
Revised version published in Int'l J. Electronic Commerce 7, 4 (Summer 2003)

14TH CONFERENCE (2001) – CHAIR BOB O'KEEFE, BRUNEL UNIVERSITY, LONDON  
ING Group: Coordinating Channels  
Tonja van DIEPEN  
Delft Uni. of Technology, The Netherlands

13TH CONFERENCE (2000) – CHAIR STEFAN KLEIN, UNIVERSITY OF MÜNSTER, GERMANY  
Understanding the Adoption of ECR: A Broader Perspective  
Sherah KURNIA (1) & Robert B. JOHNSTON (2)  
1 – Monash Uni., Melbourne, 2 – Uni. of Melbourne, Australia  
Revised version published in J. Strat. Infor. Syst. 9, 4 (December 2000) 295-319

12TH CONFERENCE (1999) – CHAIR STEFAN KLEIN, UNIVERSITY OF MÜNSTER, GERMANY  
Mobile Agents on Electronic Markets: Opportunities, Risks and Agent Protection  
Torsten MANDRY, Gnther PERNUL & Alexander W. RÖHM  
Uni. of Essen, Germany  
Revised version published in Int'l J. Electronic Commerce 5, 2 (Winter 2000-2001)

## **The First 25 Years of the Bled eConference**

### **Appendix 8: Google Scholar Citation Count As at 20 June 2011**

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

Roslan Ismail and Audun Josang, 2002

**The beta reputation system**

<http://aisel.aisnet.org/bled2002/41>

Cited by **509** (!!!)

Alexander Osterwalder and Yves Pigneur, 2002

**An eBusiness Model Ontology for Modeling eBusiness**

<http://aisel.aisnet.org/bled2002/2>

Cited by **333** (!!!)

Adamantia Pateli, 2003

**A framework for understanding and analysing e-business models**

<http://aisel.aisnet.org/bled2003/4>

Cited by **92** (!!)

Herbjørn Nysveen and Per Pedersen, 2003

**Usefulness and self-expressiveness: extending TAM to explain the adoption of a mobile parking service**

<http://aisel.aisnet.org/bled2003/64>

Cited by **52** (!)

Jaap Gordijn, Alexander Osterwalder, and Yves Pigneur, 2005

Comparing two business model ontologies for designing e-business models and value constellations

<http://aisel.aisnet.org/bled2005/15>

Cited by **38**

Sascha Schmitt, Ralph Bergmann, 1999

Applying case-based reasoning technology for product selection and customization in electronic commerce environments

p. 106

Cited by **38**

Stuart J. Barnes, Richard Vidgen, 2000

Information and interaction quality: evaluating Internet bookshop web sites with WebQual

p. 426

Cited by **33**

Roger Clarke, 2002

eConsent: A critical element of trust in ebusiness

<http://aisel.aisnet.org/bled2002/12>

Cited by **32**

Roger Clarke, 1999

The willingness of net-consumers to pay: A lack-of-progress report

p. 270, <http://www.rogerclarke.com/EC/WillPay.html>

Cited by **30**

Susanne Klaue, Karl Kurbel, and Iouri Loutchko, 2001

Automated negotiation on agent-based e-marketplaces: an overview

<http://aisel.aisnet.org/bled2001/8>

Cited by **27**

Martin Bichler, 1999  
Decision analysis-a critical enabler for multi-attribute auctions  
p. 123  
Cited by 27

Stefan Klein, Claudia Loebbecke, 2000  
The transformation of pricing models on the web: examples from the airline industry  
p. 331  
Cited by 26

Robert Johnston, Stefan Klein, and Kai Reimers, 2004  
The Shaping Of Inter-Organisational Information Systems: Main Design Considerations Of An International Comparative Research Project  
<http://aisel.aisnet.org/bled2004/47>  
Cited by 23

Sherah Kurnia, Paula M.C. Swatman, Don Schauder, 1998  
Efficient Consumer Response: a preliminary comparison of US and European experiences  
p. 126  
Cited by 23

[Philippe Aigrain, 2003  
[The individual and the collective in open information communities  
[This text is the extended abstract of an invited talk at the 16th BLED Electronic Commerce Conference, 9-11 June 2003  
[ <http://flosshub.org/system/files/aigrain3.pdf>  
[Cited by 21

Stefan Klein, Claas Mueller-Lankenau, and Kai Wehmeyer, 2004  
Developing a Framework for Multi Channel Strategies. An Analysis of Cases from the Grocery Retail Industry  
<http://aisel.aisnet.org/bled2004/9>  
Cited by 20

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Promises and pitfalls of SME integration  
R Beck, T Weitzel... - 15th Bled Electronic Commerce Conference ..., 2002  
Cited by 19

Electronic Publishing: A Specialised Form of Electronic Commerce  
R Clarke - ... International Electronic Commerce Conference, Bled, ..., 1997  
Cited by 18

A customization approach for structured products in electronic shops  
A Stahl, R Bergmann... - ... Bled Electronic Commerce Conference ..., 2000 - Citeseer  
Cited by 17

Utilizing information processing for enhancing value: towards a model for supporting business and consumers within an Internet retailing environment  
AP Vrechopoulos, KC Pramataris... - ... Electronic Commerce Conference, 1999  
Cited by 17

A design methodology for trust and value exchanges in business models  
J Gordijn... - Procs. of BLED Conference, 2003 - Citeseer  
Cited by 19

Combining physical and virtual channels: Opportunities, imperatives and challenges  
C Steinfield, H Bouwman, T Adelaar - ... Commerce Conference, Bled, ..., 2001 - Citeseer

Cited by 19

Collaborative product representation for emergent electronic marketplace

J Guo... - 16th Bled Electronic Commerce Conference: ... - Citeseer

Cited by 17

Electronic services delivery: From brochure-ware to entry points

R Clarke - ... International Electronic Commerce Conference, Bled, ..., 1999 - rogerclarke.com

Cited by 17

Critical success factors for accelerating mobile commerce diffusion in Europe

AP Vrechopoulos, ID Constantiou... - ... Commerce Conference, 2002 - Citeseer

Cited by 16

Electronic Commerce Careers: A Preliminary Survey of the Online Marketplace

ESK Chan... - ... 13th Bled Electronic Commerce Conference, 2000 - Citeseer

Cited by 16

Using actor-network theory to research the implementation of a BB portal for regional SMEs in Melbourne, Australia

A Tatnall... - ... Bled Electronic Commerce Conference ..., 2002 -

Cited by 17

Factors affecting the successful introduction of mobile payment systems

H van der Heijden - 15th Bled Electronic Commerce Conference (Bled ..., 2002 - Citeseer

Cited by 15

Hybrid organization in high-tech enterprise

R Lamb... - ... of the 17th Bled e-Commerce Conference, 2004 - Citeseer

Cited by 15 - Related articles - All 22 versions

Capturing the dynamics of eBusiness models: the ebusiness analysis framework and the electronic trading infrastructure

S McGann... - ... Bled Electronic Commerce Conference, Bled, ..., 2002 - Citeseer

Cited by 15

Virtual store atmosphere in Internet retailing

AP Vrechopoulos, RM O'Keefe... - ... 13th Bled E-commerce Conference: ..., 2000

Cited by 14

Open agent environment for context aware m-commerce

N Sadeh, E Chan... - ... Electronic Commerce Conference ..., 2002 - casos.cs.cmu.edu

Cited by 13

Impact of eBusiness Supply Chain Technology on Inter-organisational Relationships: Stories from the Front Line

B Icasati-Johanson... - ... Bled eCommerce Conference, 2003 - ecom.fov.uni-mb.si

Cited by 13

eProcurement Model for B2B Exchanges: An Australian Example

M Singh... - 15th Bled Electronic Commerce Conference, 2002 - Citeseer

Cited by 13

The public WLAN market and its business models-an empirical study

A Shubar... - 17th Bled eCommerce Conference, 2004 - Citeseer

Cited by 12

Online supermarkets: Emerging strategies and business models in the UK

I Yousept... - Proc. 17th Bled eCommerce Conference, 2004 - Citeseer

Cited by 12



Intranet Boundaries: social actors and systems integration  
R Lamb - 15th Bled Electronic Commerce Conference, 2002 - Citeseer  
Cited by 11

New and emerging business models for online news: a survey of 10 European countries  
C Krueger, K Van Der Beek... - ... eCommerce Conference, 2004 - Citeseer  
Cited by 11

It's All About My Phone! Use of Mobile Services in Two Finnish Consumer Samples  
C Carlsson, K Hyvönen, P Repo... - ... eCommerce Conference, 2004 -  
Cited by 10

Towards value-based design patterns for inter-organizational control  
V Kartseva, J Hulstijn, YH Tan... - ... of the 19th Bled Conference: ..., 2006 - Citeseer  
Cited by 10

Modelling customer relationships in e-business  
A Osterwalder... - 16th Bled eCommerce Conference, Bled, ..., 2003 - Citeseer  
Cited by 10

Business Model formation within the online news market: the core+ complement business model  
framework  
CC Krüger, PMC Swatman... - ... eCommerce Conference: ..., 2003 - Citeseer  
Cited by 10

## The First 25 Years of the Bled eConference

### Appendix 9: Journal Article Citation Counts

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

UEC	Lee & Bons	50			
1,1 (1996)	Jiang & Conrath	29			
	Hooogewegen & Wagenaar	22			
UEC	Clark & Lee	15			
2,1 (1997)	Klein & Schad	17			
	Wilde & Swatman	18			
	Dutta	28			
UEC	Klein & O'Keefe	78			
3,3 (1999)	Poon & Swatman	73			
	Giaglis et al.	65			
	Bolisani et al.	8			
	Brandtweiner & Scharl	23			
	Hermann & Pernul	58			
	Tan	10			
UEC	Alt & Fleisch	31	EM	Heikkila et al.	7
5,2 (2001)	Raymond & Blili	32	10,1(2000)	Sieber	12
	Mandry et al.	19		Lee et al.	20
	Tan & Thoen	<b>285</b>			
UEC	Barnes & Vidgen	<b>200</b>			
6,1 (2001)	Vehovar et al.	9			
UEC	Steinfeld et al.	<b>134</b>			
7,1 (2002)	Wilkins et al.	8			
	Stafford & Stein	58			
UEC	Lamb	24			
7,4 (2003)	Sieber & Sabatier	9			
	Tan & Thoen	14			
	Juul & Jørgensen	5			
UEC	Koch & Möslin	19			
9,3 (2005)	Gordijn & Tan	34			
	Driedonks	42			
	Blount et al.	18			
UEC	Dinev & Hart	75			
10,2(2006)	Hassanien & Head	58			
	Kartseva et al.	36			
	Müller-Lankenau	11			
	Wade & Nevo	26			
			EM	Shumarov & Swatman	3
			17,1(2007)	Bouwman et al.	17
				Loebbecke	37
				Schubert & Leimstoll	13
			EM	Tanner et al.	20
			18,1(2008)	Smits & Jansen	4
				Loebbecke & Huyskens	13
				Legner & Vogel	13
				Baida et al.	14
				Neumann et al.	9
			EM	de Reuver et al.	8
			19,1(2009)	Novak & Schwabe	13
			EM	Reimers et al.	4
			20,3(2010)	Cocosila & Archer	1

## The First 25 Years of the Bled eConference

### Appendix 10: AIS eLibrary Downloads 3 Years to mid-2011

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

<b>A Framework for Understanding and Analysing eBusiness Models</b> <b><u>Adamantia Pateli</u>, 2003</b>	693	<a href="http://aisel.aisnet.org/bled2003/4">http://aisel.aisnet.org/bled2003/4</a>
<b>Factors Affecting Consumer Adoption Decisions and Intents in Mobile Commerce: Empirical Insights</b> <b>Bill Anckar and Pirkko Walden, 2003</b>	519	<a href="http://aisel.aisnet.org/bled2003/28">http://aisel.aisnet.org/bled2003/28</a>
<b>Users' Awareness of Privacy on Online Social Networking Sites – Case Facebook</b> <b>Virpi Kristiina Tuunainen, Olli Pitkänen, Marjaana Hovi, 2009</b>	269	<a href="http://aisel.aisnet.org/bled2009/42">http://aisel.aisnet.org/bled2009/42</a>
Motives for Using Social Network Sites (SNSs) – An Analysis of SNS Adoption Among Students Jan vom Brocke, Daniel Richter, <u>Kai Riemer</u> , 2009	247	<a href="http://aisel.aisnet.org/bled2009/40">http://aisel.aisnet.org/bled2009/40</a>
Web Content Management <u>Stuart Barnes</u> , Steve Goodwin, <u>Richard Vidgen</u> , 2001	169	<a href="http://aisel.aisnet.org/bled2001/47">http://aisel.aisnet.org/bled2001/47</a>
To Trust or Not to Trust? A Model of Internet Trust from the Customer's Point of View Lawrence Ang, Chris Dubelaar, Boon-Chye Lee, 2001	142	<a href="http://aisel.aisnet.org/bled2001/43">http://aisel.aisnet.org/bled2001/43</a>
Effective Management and Policy in e-Business Security Sharman Lichtenstein, <u>Paula Swatman</u> , 2001	138	<a href="http://aisel.aisnet.org/bled2001/19">http://aisel.aisnet.org/bled2001/19</a>
Combining Physical and Virtual Channels: Opportunities, Imperatives and Challenges Thomas Adelaar, <u>Harry Bouwman</u> , Charles Steinfield, 2001	122	<a href="http://aisel.aisnet.org/bled2001/11">http://aisel.aisnet.org/bled2001/11</a>
Looking Beyond Technology: A Framework for Business Intelligence and Business Process Management Integration Olivera Marjanovic, 2009	110	<a href="http://aisel.aisnet.org/bled2009/18">http://aisel.aisnet.org/bled2009/18</a>
Organising for Business Intelligence: A Framework for Aligning the Use and Development of Information Joep Dekkers, Johan Versendaal, Ronald Batenburg, 2007	99	<a href="http://aisel.aisnet.org/bled2007/15">http://aisel.aisnet.org/bled2007/15</a>
Electronic Commerce and Electronic Business Implementation Success Factors Gloria Chan, Vatcharaporn Esichaikul, 2001	96	<a href="http://aisel.aisnet.org/bled2001/21">http://aisel.aisnet.org/bled2001/21</a>
A Case Study on Mobilizing Business Process Vaida Kadyte, 2005	96	<a href="http://aisel.aisnet.org/bled2005/1">http://aisel.aisnet.org/bled2005/1</a>
Developing Organizational Capabilities in SMEs: Enabling Environmentally Sustainable ICT Steve Elliot, 2005	89	<a href="http://aisel.aisnet.org/bled2009/24">http://aisel.aisnet.org/bled2009/24</a>

RFID-enabled Supply Chain Collaboration Services in a Networked Retail Business Environment Cleopatra Bardaki, Katerina Pramadari, Georgios I. Doukidis, 2007	87	<a href="http://aisel.aisnet.org/bled2007/51">http://aisel.aisnet.org/bled2007/51</a>
Implementing Information Management Strategically: An Australian EDRMS Case Study Linda Wilkins, Duncan Holt, <u>Paula M. C. Swatman</u> , <u>Elsie S. K. Chan</u> , 2007	81	<a href="http://aisel.aisnet.org/bled2007/45">http://aisel.aisnet.org/bled2007/45</a>
An e-Transformation Study Using the Technology–Organization–Environment Framework Judy E. Scott, 2007	78	<a href="http://aisel.aisnet.org/bled2007/55">http://aisel.aisnet.org/bled2007/55</a>
From Consumer Preferences Towards Buying Decisions - Conjoint Analysis as Preference Measuring Method in Product Recommender Systems Michael Scholz, 2008	71	<a href="http://aisel.aisnet.org/bled2008/28">http://aisel.aisnet.org/bled2008/28</a>
European criteria for assessing Enterprise Resource Planning (ERP) Systems: Preliminary Results from Multiple Empirical Studies Edward W.N. Bernroider, Frantisek Sudzina, <u>Andreja Pucihar</u> , 2009	71	<a href="http://aisel.aisnet.org/bled2009/19">http://aisel.aisnet.org/bled2009/19</a>
The Effectiveness of Electronic Word-of-Mouth Communication: A Literature Analysis Christy M.K. Cheung, Dimple R. Thadani, 2010	69	<a href="http://aisel.aisnet.org/bled2010/18">http://aisel.aisnet.org/bled2010/18</a>
Standing on the Shoulders of Giants: Are ERP Success Factors Relevant for EDRMS Implementation? Thuy-Linh Nguyen, <u>Paula M.C. Swatman</u> , Bardo Fraunholz, 2008	68	<a href="http://aisel.aisnet.org/bled2008/6">http://aisel.aisnet.org/bled2008/6</a>
Organisational Change in the Third Sector and Implications for Organisational Networks Nicole L. Howard, Paul A. Swatman, 2009	65	<a href="http://aisel.aisnet.org/bled2009/5">http://aisel.aisnet.org/bled2009/5</a>
Collaborative Shopping Networks: Sharing the Wisdom of Crowds in E-Commerce Environments Peter Leitner, Thomas Grechenig, 2008	65	<a href="http://aisel.aisnet.org/bled2008/21">http://aisel.aisnet.org/bled2008/21</a>
Increasing the Loyalty Effects of eCRM Across the Service Delivery Cycle Luuk P.A. Simons, Joleen van Loon, Nicole M. de Koning, Janneke Kruse, <u>Harry Bouwman</u> , 2009	64	<a href="http://aisel.aisnet.org/bled2009/1">http://aisel.aisnet.org/bled2009/1</a>
Social Networking Sites and Equal Opportunity: The Impact of Accessibility Denise Leahy, Ultan Ó Broin, 2009	63	<a href="http://aisel.aisnet.org/bled2009/41">http://aisel.aisnet.org/bled2009/41</a>
Adoption of Personalisation Mobile Services: Evidence from Young Australians Sally Rao Hill, Indrit Troshani, 2009	62	<a href="http://aisel.aisnet.org/bled2009/35">http://aisel.aisnet.org/bled2009/35</a>
Enhancing Collaborative CRM with Mobile Technologies Olaf Reinhold, Rainer Alt, 2009	60	<a href="http://aisel.aisnet.org/bled2009/36">http://aisel.aisnet.org/bled2009/36</a>
Gap Analysis Methodology for Identifying Future Ict Related eGovernment Research Topics – Case of “Ontology and Semantic Web” in the Context of eGovernment <u>Andreja Pucihar</u> , Kristina Bogataj, Maria Wimmer, 2007	59	

Motivations To Produce User Generated Content: Differences Between Webloggers And Videobloggers Ralph Stoeckl, Patrick Rohrmeier, Thomas Hess, 2007	57	<a href="http://aisel.aisnet.org/bled2007/30">http://aisel.aisnet.org/bled2007/30</a>
eCustoms Innovation and Transformation: A Research Approach Yao-Hua Tan, Stefan Klein, Boriana Rukanova, Ziv Baida, 2006	56	<a href="http://aisel.aisnet.org/bled2006/41">http://aisel.aisnet.org/bled2006/41</a>
<b>Tweet Inside: Microblogging in a Corporate Context</b> Kai Riemer, Alexander Richter, 2010	56	<a href="http://aisel.aisnet.org/bled2010/41">http://aisel.aisnet.org/bled2010/41</a>
Case Study: Hostelworld.com James Cunningham, 2005	55	<a href="http://aisel.aisnet.org/bled2005/12">http://aisel.aisnet.org/bled2005/12</a>
A Short-Form Measure Of Attitude Towards Using A Mobile Information Service Mark Ogertshnig, Hans van der Heijden, 2004	55	<a href="http://aisel.aisnet.org/bled2004/2">http://aisel.aisnet.org/bled2004/2</a>
A Conceptual Framework for Business Model Research Susan Lambert, 2008	55	<a href="http://aisel.aisnet.org/bled2008/24">http://aisel.aisnet.org/bled2008/24</a>
The Beta Reputation System Roslan Ismail, Audun Josang, 2002	54	<a href="http://aisel.aisnet.org/bled2002/41">http://aisel.aisnet.org/bled2002/41</a>
SME Internet Adoption: Towards a Transporter Model Margi Levy, Philip Powell, 2002	52	<a href="http://aisel.aisnet.org/bled2002/38">http://aisel.aisnet.org/bled2002/38</a>
A Framework for Delivering M-health Excellence Steve Goldberg, Nilmini Wickramasinghe, 2005	52	<a href="http://aisel.aisnet.org/bled2005/2">http://aisel.aisnet.org/bled2005/2</a>
Towards a Process Model for Digital Content Analysis – The Case of Hilti Jan vom Brocke, Alexander Simons, 2008	51	<a href="http://aisel.aisnet.org/bled2008/2">http://aisel.aisnet.org/bled2008/2</a>
Computing Clouds on the Horizon? Benefits and Risks from the User's Perspective Roger Clarke, 2010	50	<a href="http://aisel.aisnet.org/bled2010/2">http://aisel.aisnet.org/bled2010/2</a>
The Role of Redress in B2C E-Business Chin Eang Ong, Mohini Singh, 2009	50	<a href="http://aisel.aisnet.org/bled2009/6">http://aisel.aisnet.org/bled2009/6</a>
Emerging Mobile Government Services: Strategies for Success Tarek El-Kiki, Elaine Lawrence, 2007	50	<a href="http://aisel.aisnet.org/bled2007/5">http://aisel.aisnet.org/bled2007/5</a>

Analysis of the Hit-Counts on Roger Clarke's Bled Papers at <http://www.rogerclarke.com>

Conducted 29 August 2011 on the data available at that date

Publ'd URL	Topic	Google Citns	AIS Dwnlds	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996
2011 EC/CCC.html	Consumer Cloud	0	-	708	708														
2010 II/CCBR.html	Business Cloud	2	55	1436	819	617													
2009 EC/CTeC.html	Carbon Trading	0	26	887	69	371	447												
2008 EC/MP-RAF.html	Mobile Paymt Risk	1	13	6811	1555	2182	1644	1430											
2006 EC/PPSE0601.html	Privacy Pol Stmt	1	5	4442	457	311	384	927	1115	1248									
2004 EC/Bled04.html	Open Bus Models	20	2	17304	957	1414	1166	2441	3321	3469	2854	1683							
2003 EC/Bled03.html	Authentication/PKI	4	6	7635	149	415	499	1040	1240	1410	1073	939	869						
2002 EC/eConsent.html	eConsent	34	2	12247	736	1059	806	1610	1489	1670	1340	1365	1071	1102					
2001 EC/Bled01.html	B2B Taxonomy	8	32	14388	289	763	685	1466	1284	2076	1673	1586	1564	1560	1443				
2000 EC/Bled2K.html	IP Rts Markets	6	-	16413	642	811	747	1661	1721	1854	1557	1682	1838	1297	1677	926			
1999 EC/WillPay.html	Willingness to Pay	30	-	33325	684	785	897	2314	2726	3485	2924	2711	3221	3335	4173	3900	1979	192	
1997 EC/Bled97.html	ePublishing	18	-	23388	414	713	722	1398	1576	2137	1628	2006	2022	1989	2350	2633	1882	1160	761
1996 EC/CamCla960612.htm	Collab Proj SME	18	-	10721	155	386	350	859	930	1331	1007	855	821	770	858	1092	507	605	195
UNREFEREED																			
1999 EC/ESD.html	Elect. Svcs Dely	15	-	24145	671	834	724	1555	1781	2129	1700	2331	2339	2223	2652	3159	2048		0
1994 EC/Bled94.html	Intl Trade EDI	6	-	16567	335	611	514	1475	1361	1771	1410	1330	1520	1316	1482	1784	1141	322	195
1993 EC/Bled93.htm	EDI => eCommerce	34	-	41021	909	1116	1254	2015	2267	2490	2189	2726	3405	2652	5041	4729	4261	3403	2009
		197	141	231438	9549	12388	10839	20190	20810.3	25070	19353.8	19212	18671	16244	19676	18223	11817	5681	3159
REJECTED																			
2007 EC/ePublAc.html	ePublishing Journals	6	-	6675	1518	1243	756	1749	1409										
2005 EC/P2PRes.html	P2P Research Agenda	3	-	10528	627	1459	1701	1346	1474	2276	1646								
(Published in JTAER 2006 and JIC 2008)																			
		206	141	248640	11694	15090	13296	23285	23693	27345	21000	19212	18671	16244	19676	18223	11817	5681	3159
Total hits on the site, in thousands, rounded																			
				36950	3000	3500	3200	4250	3200	3600	3200	2700	2400	2300	2000	1600	1000	500	300

From 1995 to Feb 2009, the site was at <http://www.anu.edu.au/people/Roger.Clarke/> within ANU's site (Page-Rank = 8). Since Feb 2009 it has been an independent site (Page-Rank = 6)

This change resulted in lower exposure of the site to hits from search-engines, and an apparent decline in hits on Bled papers to 2/3rds of the previous level

2009-11 are actual human hits (i.e. excl. robots)

2011 is 7.9 mths actual, grossed up by 50% for Sep-Dec

2009 is 10.5 mths actual, grossed up by 10% for January

2003-2008 are actual hits, discounted by 25% for robot-visits, i.e. pages not viewed by humans

25%

1996-2002 are a 4/52 sample of weeks of the weekly counts across each year, grossed up by a factor of 13

2008		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008 EC/MP-RAF.html	Mobile Paymt Risk	1907	40	122	108	115	176	206	175	198	184	178	202
2006 EC/PPSE0601.html	Privacy Pol Stmt	1236	129	131	121	142	134	122	119	83	101	94	25
2004 EC/Bled04.html	Open Bus Models	3254	242	278	294	330	360	355	259	204	224	242	226
2003 EC/Bled03.html	Authentication/PKI	1387	153	130	107	138	122	119	106	103	85	97	106
2002 EC/eConsent.html	eConsent	2147	211	166	185	193	230	204	186	141	162	141	159
2001 EC/Bled01.html	B2B Taxonomy	1954	124	173	164	192	260	214	145	127	123	145	171
2000 EC/Bled2K.html	IP Rts Markets	2215	175	251	187	209	181	196	177	125	117	200	228
1999 EC/WillPay.html	Willingness to Pay	3085	273	321	287	296	374	295	257	186	164	218	194
1997 EC/Bled97.html	ePublishing	1864	169	143	126	185	168	155	152	170	126	168	141
1996 EC/CamCla960612.htm	Collab Proj SME	1145	101	83	98	103	105	97	82	93	74	97	107
UNREFEREED													
1999 EC/ESD.html	Electronic Services Delive	2073	164	167	202	195	186	184	182	159	117	186	179
1994 EC/Bled94.html	Intl Trade EDI	1967	108	120	133	166	262	292	209	175	174	113	111
1993 EC/Bled93.htm	EDI => eCommerce	2686	235	228	240	221	225	252	231	191	189	239	247
REJECTED													
2007 EC/ePublAc.html	ePublishing Journals	2332	157	150	172	166	222	199	156	176	216	199	299
2005 EC/P2PRes.html	P2P Research Agenda	1794	141	135	117	133	183	253	147	112	144	156	147

31046

2007

2007		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2006 EC/PPSE0601.html	Privacy Pol Strmts	1487	158	124	143	135	188	137	130	102	88	83	92	107
2004 EC/Bled04.html	Open Bus Models	4428	399	363	430	436	545	471	433	361	247	266	250	227
2003 EC/Bled03.html	Authentication/PKI	1653	154	109	126	136	173	181	186	128	111	121	101	127
2002 EC/eConsent.html	eConsent	1985	171	136	156	192	201	185	182	149	147	175	133	158
2001 EC/Bled01.html	B2B Taxonomy	1712	143	139	167	169	202	130	156	123	140	128	113	102
2000 EC/Bled2K.html	IP Rts Markets	2295	172	153	175	162	210	207	230	256	161	221	219	129
1999 EC/WillPay.html	Willingness to Pay	3635	297	273	375	369	339	331	342	287	263	267	242	250
1997 EC/Bled97.html	ePublishing	2101	203	150	187	190	220	207	216	166	156	127	115	164
1996 EC/CamCla960612.h	Collab Proj SME	1240	110	94	124	111	139	121	122	97	85	62	84	91
UNREFEREED														
1999 EC/ESD.html	Electronic Services Delive	2374	218	181	250	214	243	225	182	169	185	171	169	167
1994 EC/Bled94.html	Intl Trade EDI	1814	133	121	149	171	216	161	136	130	142	198	141	116
1993 EC/Bled93.htm	EDI => eCommerce	3023	247	229	271	284	351	290	245	222	194	264	242	184
REJECTED														
2007 EC/ePublAc.html	ePublishing Journals	1878	88	193	114	144	132	118	124	134	348	181	164	138
2005 EC/P2PRes.html	P2P Research Agenda	1965	149	153	148	176	271	228	149	127	124	160	127	153
		27747												

2006

2006			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2006	EC/PPSE0601.html	Privacy Pol Strmts	1664	111	87	174	164	173	120	120	140	157	137	122	159
2004	EC/Bled04.html	Open Bus Models	4625	365	351	548	435	410	340	352	372	326	406	365	355
2003	EC/Bled03.html	Authentication/PKI	1880	123	135	266	231	213	149	121	128	116	117	150	131
2002	EC/eConsent.html	eConsent	2226	162	152	309	275	253	177	151	168	134	147	143	155
2001	EC/Bled01.html	B2B Taxonomy	2768	207	204	361	319	267	229	176	205	169	185	255	191
2000	EC/Bled2K.html	IP Rts Markets	2472	167	169	309	304	267	179	214	157	161	165	216	164
1999	EC/WillPay.html	Willingness to Pay	4647	397	336	577	473	419	346	390	305	346	333	361	364
1997	EC/Bled97.html	ePublishing	2849	204	220	335	334	261	214	231	211	159	247	224	209
1996	EC/CamCla960612.htn	Collab Proj SME	1775	152	137	241	197	172	145	133	127	82	126	143	120
UNREFEREED															
1999	EC/ESD.html	Electronic Services Delive	2839	200	224	343	333	284	223	202	183	189	214	227	217
1994	EC/Bled94.html	Intl Trade EDI	2361	164	171	307	258	236	165	172	157	178	188	203	162
1993	EC/Bled93.htm	EDI => eCommerce	3320	241	268	388	356	329	239	234	242	190	299	304	230
REJECTED															
2005	EC/P2PRes.html	P2P Research Agenda	3034	199	201	292	331	457	420	235	231	208	179	137	144
			33426												

2005

2005			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2004	EC/Bled04.html	Open Bus Models	3805	211	251	430	330	351	265	262	307	344	373	360	321
2003	EC/Bled03.html	Authentication/PKI	1431	116	93	131	104	121	126	142	156	97	110	117	118
2002	EC/eConsent.html	eConsent	1786	143	112	143	135	154	130	150	174	166	192	157	130
2001	EC/Bled01.html	B2B Taxonomy	2231	138	163	225	203	204	148	163	204	189	212	201	181
2000	EC/Bled2K.html	IP Rts Markets	2076	178	136	215	137	153	163	132	151	155	298	206	152
1999	EC/WillPay.html	Willingness to Pay	3898	342	299	316	280	344	285	265	279	341	417	394	336
1997	EC/Bled97.html	ePublishing	2170	221	133	206	155	169	183	157	195	169	186	206	190
1996	EC/CamCla960612.htn	Collab Proj SME	1343	98	76	99	93	107	103	92	120	132	138	152	133
UNREFEREED															
1999	EC/ESD.html	Electronic Services Delive	2266	184	181	211	154	173	163	129	179	214	217	251	210
1994	EC/Bled94.html	Intl Trade EDI	1880	149	119	157	120	170	145	139	161	163	215	199	143
1993	EC/Bled93.htm	EDI => eCommerce	2919	283	222	238	200	205	193	181	204	250	350	366	227
REJECTED															
2005	EC/P2PRes.html	P2P Research Agenda	2195	38	181	224	145	157	163	161	200	187	238	283	218
			25805												

2004		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2004 EC/Bled04.html	Open Bus Models	2244	74	85	133	100	100	99	122	185	293	504	301	248
2003 EC/Bled03.html	Authentication/PKI	1252	109	95	158	108	86	87	69	91	95	122	121	111
2002 EC/eConsent.html	eConsent	1820	164	149	177	137	126	114	133	138	197	171	157	157
2001 EC/Bled01.html	B2B Taxonomy	2114	175	190	275	187	135	138	118	152	173	205	199	167
2000 EC/Bled2K.html	IP Rts Markets	2242	195	168	221	150	166	173	148	154	191	192	250	234
1999 EC/WillPay.html	Willingness to Pay	3614	293	310	386	312	301	316	251	256	264	297	299	329
1997 EC/Bled97.html	ePublishing	2674	198	105	227	230	220	212	221	222	225	251	246	317
1996 EC/CamCla960612.htn	Collab Proj SME	1140	114	92	120	78	81	91	67	78	83	116	107	113
UNREFEREED														
1999 EC/ESD.html	Electronic Services Delive	3108	276	337	278	294	235	191	210	217	280	287	243	260
1994 EC/Bled94.html	Intl Trade EDI	1773	155	156	187	120	143	155	121	135	140	157	146	158
1993 EC/Bled93.htm	EDI => eCommerce	3635	290	283	418	338	259	268	274	235	284	304	355	327
		25616												
2003		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2003 EC/Bled03.html	Authentication/PKI	1159	0	18	118	99	92	83	113	186	136	101	107	106
2002 EC/eConsent.html	eConsent	1428	91	97	128	141	117	95	98	123	131	110	135	162
2001 EC/Bled01.html	B2B Taxonomy	2085	178	141	217	201	160	140	162	187	167	200	168	164
2000 EC/Bled2K.html	IP Rts Markets	2451	181	158	80	213	178	179	181	208	205	381	332	155
1999 EC/WillPay.html	Willingness to Pay	4295	339	347	397	469	361	272	297	350	336	387	457	283
1997 EC/Bled97.html	ePublishing	2696	226	200	289	284	195	191	214	256	268	224	184	165
1996 EC/CamCla960612.htn	Collab Proj SME	1095	76	72	126	96	68	82	72	104	76	113	107	103
UNREFEREED														
1999 EC/ESD.html	Electronic Services Delive	3119	229	239	288	314	310	301	204	208	280	279	260	207
1994 EC/Bled94.html	Intl Trade EDI	2027	172	168	188	183	127	160	161	170	202	218	147	131
1993 EC/Bled93.htm	EDI => eCommerce	4540	376	373	490	438	391	297	301	337	367	420	474	276
		24895												
2002														
2002 EC/eConsent.html	eConsent	1469												
2001 EC/Bled01.html	B2B Taxonomy	2080												
2000 EC/Bled2K.html	IP Rts Markets	1729												
1999 EC/WillPay.html	Willingness to Pay	4446												
1997 EC/Bled97.html	ePublishing	2652												
1996 EC/CamCla960612.htn	Collab Proj SME	1027												
UNREFEREED														
1999 EC/ESD.html	Electronic Services Delive	2964												
1994 EC/Bled94.html	Intl Trade EDI	1755												
1993 EC/Bled93.htm	EDI => eCommerce	3536												
		21658												
2001														
2001 EC/Bled01.html	B2B Taxonomy	1924												
2000 EC/Bled2K.html	IP Rts Markets	2236												
1999 EC/WillPay.html	Willingness to Pay	5564												
1997 EC/Bled97.html	ePublishing	3133												
1996 EC/CamCla960612.htn	Collab Proj SME	1144												
UNREFEREED														
1999 EC/ESD.html	Electronic Services Delive	3536												
1994 EC/Bled94.html	Intl Trade EDI	1976												
1993 EC/Bled93.htm	EDI => eCommerce	6721												
		26234												



**2000**

2000	EC/Bled2K.html	IP Rts Markets	1235
1999	EC/WillPay.html	Willingness to Pay	5200
1997	EC/Bled97.html	ePublishing	3510
1996	EC/CamCla960612.htn	Collab Proj SME	1456
UNREFEREED			
1999	EC/ESD.html	Electronic Services Delive	4212
1994	EC/Bled94.html	Intl Trade EDI	2379
1993	EC/Bled93.htm	EDI => eCommerce	6305
			<b>24297</b>

**1999**

1999	EC/WillPay.html	Willingness to Pay	2639
1997	EC/Bled97.html	ePublishing	2509
1996	EC/CamCla960612.htn	Collab Proj SME	676
UNREFEREED			
1999	EC/ESD.html	Electronic Services Delive	2730
1994	EC/Bled94.html	Intl Trade EDI	1521
1993	EC/Bled93.htm	EDI => eCommerce	5681
			<b>15756</b>

**1998**

1999	EC/WillPay.html	Willingness to Pay	256
1997	EC/Bled97.html	ePublishing	1547
1996	EC/CamCla960612.htn	Collab Proj SME	806
UNREFEREED			
1994	EC/Bled94.html	Intl Trade EDI	429
1993	EC/Bled93.htm	EDI => eCommerce	4537
			<b>7575</b>

**1997**

1997	EC/Bled97.html	ePublishing	1014
1996	EC/CamCla960612.htn	Collab Proj SME	260
UNREFEREED			
1994	EC/Bled94.html	Intl Trade EDI	260
1993	EC/Bled93.htm	EDI => eCommerce	2678
			<b>4212</b>

**1997**

1993	EC/Bled93.htm	EDI => eCommerce	741
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## **The First 25 Years of the Bled eConference**

### **Appendix 12: Analysis of Personal Web-Sites**

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

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#### **Introduction**

The primary paper, for which this is an underlying Working Paper, presents thematic and impact analyses of the first 25 years of the Bled eConference. Impacts are analysed primarily on the basis of Google citations and downloads from the AIS eLibrary. However, a further source of impact is downloads from the web-sites of individual researchers. This Working Paper briefly considers the general case, and then reports on an examination of the impact of Bled papers in this author's own web-repository.

#### **Hit-Counts on Personal Web-Sites**

Papers are accessible in a variety of repositories, including:

- the repository of the venue within which it was subjected to review, most commonly a journal, a conference, a book or some other one-off collection. The Bled eConference operates its own repository
- the repository/ies of the employer(s) of the author(s) of the paper, commonly universities
- the repository/ies of the professional association(s) or academy/ies of author(s) of the paper. The Bled eConference is associated with the Association for Information Systems (AIS), and has loaded all papers since 2001 into the AIS eLibrary
- the repository/ies of the author(s) themselves

The last of these presents an additional possible impact metric: hit-counts on personal web-sites.

It is unclear how prevalent personal web-sites are among IS researchers in general and Bled authors in particular. Authors have the legal capacity to publish copies of the vast majority of their research papers. In some cases, they own, or co-own, the copyright in their papers. In other cases, as a result of the open access movement, they have an at least implied licence, and in many cases an explicit licence from the copyright-owner to do so (Clarke & Kingsley 2009).

On the one hand, many authors may regard the reticulation of their articles as being the responsibility of other parties, or they may see the establishment and maintenance of a rich personal web-site as being too onerous. On the other hand, many mid-career

researchers have a substantial corpus of works, and both mid-career and early-career researchers with ambition seek opportunities to promote their work and their capabilities.

### **Hit-Counts on This Author's Web-Repository**

The author was an early mover in the personal web-site arena, having commenced the development of his site in August 1994 and launched it in February 95. Since then, the site has accumulated over 35 million hits.

The author has also had 16 papers published in 15 of the 24 Bled conference Proceedings to date, and all of them were also published on his web-site. The earliest two, in 1993 and 1994, were post-published, but in all cases since then both one or more PrePrints (for review by colleagues prior to submission) and the PostPrint (the version submitted to the conference) have been published on the site. The collection of Bled papers gains well in excess of 10,000 hits p.a., and has a cumulative hit-count (excluding hits by search-engine robots) of over 230,000, with several individual papers well in excess of 20,000.

An experimental investigation was undertaken, in order to establish whether the data can be mined for insights into the impact of self-publication of scholarly papers on authors' own web-sites. The raw data is provided in an Appendix to the main paper.

Some very general inferences can be drawn, but the number of factors that influence the hit-count is so great that patterns are not easy to discern. For example, web-traffic as a whole has increased by many factors over the 16 years covered by the data. For the first 13 years, the site was part of a large university site with a Page-Rank of 8, but since then it has been a standalone Page-Rank 5 / 6 site. This has resulted in a reduction to about 2/3rds the number of hits, because the papers are sorted lower by the precedence algorithm of the Google search-engine at least.

Another factor that is very difficult to moderate for is the relative popularity of the particular topic addressed by the paper, and hence the scale of the paper's potential audience. The topic-areas addressed by the papers in question vary from the mainstream (e.g. EDI in 1993-94, ePublishing, business models, B2B, B2C and authentication) to relatively obscure corners of eCommerce that are of interest to small numbers of people (e.g. project management, eConsent, privacy policy statements and carbon trading).

The number of downloads is far greater than the download-counts within the AIS eLibrary. For example, the 2010 paper (on the topical issue of cloud computing) was hit 617 times in 2010 and has an annualised figure of 819 for 2011, but had been downloaded from the AIS eLibrary only 55 times in its first 9 months on the site. The 2009 paper (on carbon trading – which is a highly unfashionable topic, within the IS discipline at least) was hit 447 and 371 times in its first 2 years on the personal site, but has been downloaded from the AIS eLibrary a mere 26 times in 2 full years.

### **Sources of Hit-Counts on This Author's Web-Repository**

The Google citation-counts for the papers show very little correlation with the hit-counts. On the basis of that, combined with occasional deep analyses of logs and the source and nature of occasional emails from people who have accessed the site, it is apparent that a

considerable proportion of the hits are from students. Some follow links within the course-materials provided by university staff, and others discover the papers from their own searches, either directly or via pre-digested reference material. On the other hand, within-year patterns are remarkably stable, particularly for the more popular papers, suggesting that the 'clientele' is widespread and varied, rather than being predominantly from a small number of large student populations.

This raises the question of the catchment area of downloads, and hence the issue of 'impact on whom?'. The 'ivory tower' view of academe looks for impacts of high quality, i.e. citations, and downloads by researchers. The 'education' perspective also values downloads by students, particularly graduate students – because they are in a stronger position than undergraduates to utilise the information contained in a refereed paper. A broad 'university as business' perspective, on the other hand, also values downloads by business and government, and even by members of the public who are undertaking informal private research.

### **The Longevity of Papers**

The 'working life' of papers is also of interest. The annual hit-counts of some of the papers exhibited an intuitively obvious rising slope followed by a falling slope. The annual hit-count on the earliest paper of 1993 (on 'EDI as a form of electronic commerce') peaked at 5,000, 8 years later in 2001, but it was still half that level in 2006, and is still running at around 1,000 p.a., and in 2011 it appears likely to have the third-highest hit-count of the 15 papers, even though it has not been the highest-count paper in any year since 2004. On the other hand, the 1999 paper (on consumers' willingness to pay) had dual peaks in 2001 and 2006, 2 and 7 years later. The 1997 paper (on ePublishing) exhibited a similar although less marked pattern, so perhaps this is an artefact of the growth in interest in eCommerce. Moreover, papers on International Trade EDI, project management, marketspaces for intellectual property rights and eConsent had essentially flat distributions over an 8-10 year period.

### **Lessons Learnt**

This single-case study has shown that at least some Bled papers have gained considerable exposure through personal web-repositories, in the form of many multiples of the downloads achieved from the conference and professional-association repositories.

In order to provide some insight into the extent to which Bled authors operate their own web-repositories, searches were conducted in relation to the authors of the 'top five' Bled papers as measured by Google citations for conference papers, by Google citations for journal articles developed from Bled conference papers, and by AIS Downloads. Mere lists of publications, and even access to Abstracts, were excluded from the count. The sample is intentionally biased, in that it comprised successful authors – and in most cases senior authors. Such authors would appear to be more likely than others to maintain their own repositories (although contrary factors exist, e.g. younger authors are more technically-capable and need to try harder). The results are summarised in an Appendix to the main paper.

Of the 29 authors in the sample, 7 operated a repository that was readily located and that contained copies of at least a considerable proportion of the author's papers. In all cases, they were pages or sub-sites within a university domain, which could be expected to have a moderately high page-rank with search-engines. Given that the papers would rank reasonably highly in searches, these authors' Bled papers may have gained considerable numbers of downloads from authors' own web-repositories.

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## The First 25 Years of the Bled eConference

### Appendix 13: Author Repositories As at 22 December 2011

This is an Appendix to Clarke R. (2012)  
'The First 25 Years of the Bled eConference: Themes and Impacts'

The sample comprised 29 leading authors, defined as being those of the 'top five' Bled papers as measured by Google citations for conference papers, by Google citations for journal articles developed from Bled conference papers, and by AIS Downloads

<b>Thomas Adelaar (NL):</b>	<a href="http://adelaar.com/?page_id=5">http://adelaar.com/?page_id=5</a>	
Bill Anckar (FI):		Not Found
<b>Stuart Barnes (UK):</b>	<a href="http://business.uea.ac.uk/prof-stuart-barnes#s4">http://business.uea.ac.uk/prof-stuart-barnes#s4</a>	
Harry Bouwman (NL):		List Only
Jan vom Brocke (LI):		List Only
Tamara Dinev (US):		Not Found
Steve Goodwin (UK):		Not Found
Jaap Gordijn (NL): Abstracts Only	<a href="http://e3value.few.vu.nl/bibquery/?author=Gordijn">http://e3value.few.vu.nl/bibquery/?author=Gordijn</a>	
Paul Hart (US):		Not Found
Marjaana Hovi (FI):		Not Found
Roslan Ismail (MY):		Not Found
<b>Audun Josang (NO):</b>	<a href="http://folk.uio.no/josang/publications.html">http://folk.uio.no/josang/publications.html</a>	
Stefan Klein (DE):		List Only
Claudia Loebbecke (DE):		List Only
Herbjørn Nysveen (NO):		List Only
Bob O'Keefe (UK):		List Only
Alexander Osterwalder (CH):		Not Found
Adamantia Pateli (GR):		List Only
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